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**MSM PRIZE 2021/10**



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**El Premio Europeo Manuel de Solà-Morales reconoce cada dos años las mejores investigaciones en el campo del urbanismo para la obtención del grado de doctor (PhD). D'UR publica en formato monográfico el acta del jurado y los resúmenes de la tesis ganadora, menciones especiales y finalistas. De este modo D'UR ofrece una selección de los temas de investigación más relevantes desarrollados en universidades europeas.**

**Every two years, the Manuel de Solà-Morales European Prize recognizes the best university research in the field of urbanism carried out by a student who has been awarded a PhD. D'UR publishes in monographic format the jury's report, the abstract of the winning thesis, special mentions and finalists. In this way, D'UR offers a selection of the most relevant research topics developed in European universities.**

***El Premi Europeu Manuel de Solà-Morales reconeix cada dos anys les millors recerques universitàries en el camp de la urbanística per obtenir el grau de doctor (PhD). D'UR publica en format monogràfic l'acta de jurat i els resums de la tesi guanyadora, mencions especials i finalistes. D'aquesta manera D'UR ofereix una selecció dels temes de recerca més rellevants desenvolupats en universitats europees.***

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Han Meyer  
Carlos Gómez Agustí  
Eulàlia Gómez-Escoda

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Joan Busquets  
Josep Parcerisa  
Carles Crosas

## **Secretaria del premi i producció**

Álvaro Clua

## **Maquetació**

Laura Thompson

# **MSM PRIZE 2021/10**

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Laboratori d'Urbanisme de Barcelona

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Enric Satué Design

**D'UR** continua **UR-Revista**, fundada el 1985 per Manuel de Solà-Morales (1939-2012)



Escola Tècnica Superior  
d'Arquitectura de Barcelona



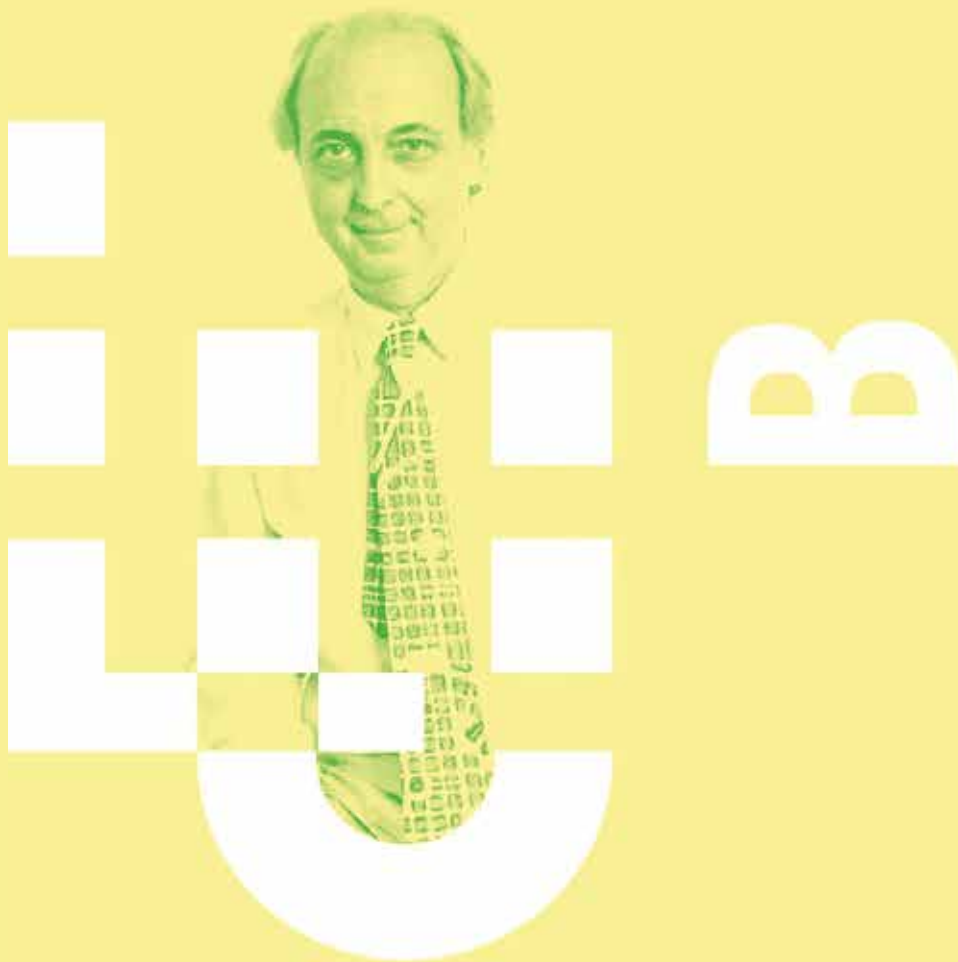
Departament d'Urbanisme i Ordenació del Territori  
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**THE THIRD  
MANUEL DE SOLÀ-MORALES  
EUROPEAN PRIZE  
2021**

Photography: Rosa Feliu  
Design: Enric Satué

## Bases · Rules



## 1. OBJECTE

El Premi Europeu Manuel de Solà-Morales reconeix cada dos anys les millors recerques universitàries en el camp de la urbanística per obtenir el grau de doctor (PhD).

El premi honora la memòria del professor i arquitecte Manuel de Solà-Morales i Rubió (1939- 2012) que va ser mestre en l'urbanisme entès com una activitat intel·lectual i creativa, compromesa amb la millora de les ciutats a través del que ell anomenava “una recerca insistent”. El premi vol donar continuïtat i ampliar la seva visió tal com molts deixebles i admiradors han manifestat des de la publicació-homenatge Papers D'UR 03/ 2012.

El premi és una iniciativa acadèmica de l'Escola Tècnica Superior d'Arquitectura de Barcelona de la Universitat Politècnica de Catalunya on va impartir docència més de quaranta anys. El Laboratori d'Urbanisme de Barcelona que ell va fundar l'any 1968, assumeix l'organització, vetlla pel desenvolupament del premi i facilita la màxima difusió dels treballs guardonats.

## 2. CANDIDATURES

Podran presentar-s'hi totes aquelles tesis doctorals que tenen l'urbanisme com a fons de la seva recerca, presentades en una universitat i llengua europea entre l'1 de gener de 2016 i el 31 de desembre de 2019 i que han obtingut una nota màxima (cum laude o equivalent). Els treballs hauran de

## 1. OBJETO

El Premio Europeo Manuel de Solà-Morales reconoce cada dos años las mejores investigaciones universitarias en el campo de la urbanística para obtener el título de doctor (PhD).

El premio honra la memoria del profesor y arquitecto Manuel de Solà-Morales i Rubió (1939-2012) que fue maestro en el urbanismo entendido como actividad intelectual y creativa, comprometida con la mejora de las ciudades a través de lo que él llamaba “una búsqueda insistente”. El premio quiere dar continuidad y ampliar su visión tal como muchos de sus discípulos y admiradores han manifestado desde la publicación-homenaje, Papers D'UR 03/2012.

El premio es una iniciativa académica de la Escuela Técnica Superior d'Arquitectura de Barcelona (ETSAB) de la Universitat Politècnica de Catalunya (UPC) donde impartió docencia durante más de cuarenta años. El Laboratorio d'Urbanisme de Barcelona (LUB) que él fundó en 1968, asume la organización, vela por el desarrollo del premio y facilita la máxima difusión de los trabajos galardonados.

## 2. CANDIDATURAS

Podrán presentarse todas aquellas tesis doctorales que tengan el urbanismo como objeto de su investigación, y hayan sido presentadas en una universidad y lengua

## 1. AIM

Every two years, the Manuel de Solà-Morales European Prize recognizes the best university research in the field of urbanism carried out by a student granted a PhD.

The award honours the memory of professor in urbanism, and architect, Manuel de Solà-Morales Rubió (1939-2012), who understood his subject as a creative and intellectual activity, committed to improving cities through what he called “persistent research.” The award seeks to give continuity to, and expand his vision of, the field; as many disciples and admirers have demonstrated since the first publication issued in tribute to him Papers D'UR núm. 03/2012.

The award is an academic initiative of the Barcelona School of Architecture (ETSAB) at the Polytechnic University of Catalonia (UPC) where he taught for more than forty years. The Barcelona Urbanism Laboratory (LUB) which he founded in 1969, organizes, oversees and facilitates the development of the award and the maximum dissemination of the works which receive it.

## 2. CANDIDATURES

Candidates can present any PhD thesis that has urbanism as the object of the candidate's research. The thesis must have been written in a European language and must have been presented in a European university between 1st January 2016 and

ser inèdits, per tant, que no hagin estat publicats en la seva totalitat.

### 3. JURAT INTERNACIONAL.

El Jurat del Tercer Premi Europeu Manuel de Solà-Morales estarà compostat per:

- Alberto Ferlenga, Arquitecte i Rector de la Università IUAV di Venezia. President del jurat
- Han Meyer, Arquitecte i Professor de Disseny Urbà a la Delft University of Technology.
- Carlos Gómez Agustí, Arquitecte, en representació de la Fundación Arquia.
- Eulàlia Gómez-Escoda, Arquitecta i Professora d'Urbanisme a l'Escola d'Arquitectura de Barcelona. Secretària del jurat i representant del LUB.

### 4. PROCEDIMENT D'INSCRIPCIÓ

Els autors de les tesis, per iniciativa pròpia, del director o altri, hauran de registrar-se a l'aplicatiu [www.lub.upc.edu/msmprize](http://www.lub.upc.edu/msmprize) i aportar la documentació detallada al portal web. La inscripció és lliure i gratuïta.

### 5. DOCUMENTACIÓ A PRESENTAR.

- Dades identificatives: Títol de la tesi; Dades bàsiques de l'autor i breu CV de 2000 caràcters (amb espais); Dades bàsiques del director; data i centre de lectura i membres del tribunal o comissió que la va valorar. Abstract de 5.000 caràcters (amb espais).
- Resum de la tesis en llengua anglesa,

europea entre el 1 de enero de 2016 y el 31 de diciembre de 2019, con una nota máxima, es decir cum laude o equivalente. Los trabajos deberán ser inéditos, por tanto, que no hayan sido publicados en su totalidad.

### 3. JURADO INTERNACIONAL

El jurado del Tercer Premio Europeo Manuel de Solà-Morales estará compuesto por:

- Alberto Ferlenga, Arquitecto y Rector de la Università IUAV di Venezia. Presidente del jurado.
- Han Meyer, Arquitecto y Profesor de Diseño Urbano en la Delft University of Technology.
- Carlos Gómez Agustí, Arquitecto, en representación de la Fundación Arquia.
- Eulàlia Gómez-Escoda, Arquitecta y Profesora de Urbanismo en la Escuela de Arquitectura de Barcelona. Secretaria del jurado y representante del LUB.

### 4. PROCESO DE INSCRIPCIÓN

Los autores de las tesis doctorales, ya sea por iniciativa propia, del director u otro, deberán registrarse en [www.lub.upc.edu/msmprize](http://www.lub.upc.edu/msmprize) y aportar la documentación detallada en el portal web. La inscripción es libre y gratuita.

### 5. DOCUMENTACIÓN A PRESENTAR

- Datos identificativos: Título de la tesis; Datos básicos del autor y breve CV de 2000 caracteres (con espacios); Datos básicos

31st December 2019. It should also have obtained the maximum mark (cum laude or equivalent). The completed thesis should not have been fully published yet.

### 3. INTERNATIONAL JURY

The jury for the Third Manuel de Solà-Morales European Prize will comprise:

- Alberto Ferlenga, Architect and Dean of the Università IUAV di Venezia, who will act as chairman of the jury.
- Han Meyer, Architect and Professor of Urban Design at Delft University of Technology.
- Carlos Gómez Agustí, Architect, representing Arquia Foundation.
- Eulàlia Gómez-Escoda, Architect and Professor of Urban Design at the Barcelona School of Architecture, who will act as the jury's secretary and as the LUB's representative.

### 4. APPLICATION PROCEDURE

The authors of the theses, either through their own initiative or through that of their thesis director or another qualified person, should register using the application procedure on [www.lub.upc.edu/msmprize](http://www.lub.upc.edu/msmprize) and providing the detailed documentation requested on the website. Registration is free.

### 5. DOCUMENTS TO BE PRESENTED.

- Identification details: Title of the thesis; Basic information about the author and a brief CV (2000 characters, counting

que sigui una síntesi explicativa dels seus continguts . La seva extensió màxima serà de 16 pàgines (en format PDF horitzontal, segons la PLANTILLA ADJUNTA) podent incloure la presentació de materials gràfics.

- S'hi annexarà una còpia digital completa de la tesi en format PDF en l'idioma original. En base a aquesta documentació el Jurat Internacional seleccionarà els treballs finalistes i s'informarà als candidats seleccionats. D'aquests, se sol·licitarà un exemplar complet de la tesi doctoral, a més de qualsevol informació addicional que el jurat consideri per la seva adequada valoració.

## 6. CALENDARI

21 de maig al 15 de setembre de 2020

Admissió de candidatures

Mitjans de desembre de 2020

Selecció de finalistes i comunicació personal als candidats seleccionats.

Mitjans de març de 2021

Acte públic de lliurament i proclamació del veredict del jurat

## 7. PREMIS

El millor PhD rebrà un premi dotat en 7.000 euros i la publicació del treball. D'acord amb la qualitat dels treballs, es podran concedir el nombre d'accèssits que consideri el jurat. Premi i accèssits rebran una distinció.

del director; Fecha y centro de lectura y miembros del tribunal o comisión que la valoró. Resumen de 5000 caracteres (con espacios).

- Resumen de la tesis en lengua inglesa, que sea una síntesis explicativa de sus contenidos. Su extensión máxima será de 16 páginas (en formato PDF horizontal, según PLANTILLA ADJUNTA) y pueden ser incluidos materiales gráficos.

- Se anexará una copia digital completa de la tesis en PDF en el idioma original.

En base a esta documentación aportada, el Jurado Internacional seleccionará los trabajos finalistas e informará únicamente a los candidatos seleccionados. Se les solicitará un ejemplar completo de la tesis doctoral, además de cualquier información adicional que el jurado considere para su adecuada valoración.

## 6. CALENDARIO

21 de mayo al 15 de setiembre de 2020

Admisión de candidaturas

Mediados de Diciembre de 2020

Selección de finalistas y comunicación personal a los seleccionados

Mediados de Marzo de 2021

Acto público de entrega y proclamación del veredicto del jurado

spaces); Basic information about the thesis Director and about the centre where reading of the thesis took place along with the panel members or the committee who evaluated it. An abstract 5,000 characters long (counting spaces).

- A summary of the thesis in English, which should provide a synopsis of the work and an explanation of its contents. The maximum length of this summary should be 16 pages (in horizontal PDF format, click here to [DOWNLOAD THE TEMPLATE](#)). You may include illustrations.

- A complete digital copy of the thesis should be attached in the original language and in PDF format.

Based on these documents, the international jury will draw up a short-list of finalists and the selected candidates will be informed in person. The short-listed candidates will be expected to provide a copy of their complete thesis, in addition to any further information that the jury deems appropriate to aid it in its deliberations.

## 6. TIMETABLE

21th May to 15th September, 2020

Acceptance of Nominations

Mid-December, 2020

Preliminary selection of finalists. Only selected candidates will be informed.

Mid-March, 2021

Ceremony - Publication of the jury's verdict

## 8. DIFUSIÓ

La tesi doctoral guanyadora serà publicada per la Fundació Arquia en la col·lecció arquia/tesis, en dos volums diferenciats en espanyol i anglès. La publicació serà coordinada pel LUB. Aquest compromís està condicionat al compliment dels requisits establerts per l'editorial: 1. L'autor revisarà l'obra i farà els canvis posteriors que siguin necessaris; 2. L'autor haurà de lliurar el manuscrit en anglès o castellà (traduir de l'original si cal); 3. Els criteris editorials establerts exigeixen que l'obra no sigui superior a 50.000 paraules (incloses notes a peu de pàgina, bibliografia i biografia, etc.) i que no contingui més de 300 il·lustracions (sense drets d'autor).

## 9. PROPIETAT INTEL·LECTUAL

Els originals dels finalistes es retornaran als autors que ho sol·licitin. L'acceptació del Premi Europeu Manuel de Solà-Morales implica la cessió gratuïta per part del premiat dels drets de publicació de l'original en les dues llengües.

## 7. PREMIOS

El primer premio está dotado de 7.000 euros y la publicación del trabajo. De acuerdo con la calidad de los trabajos se podrán conceder el número de accésits que el jurado considere. Tanto el Premio como los accésits recibirán una distinción.

## 8. DIFUSIÓN

La tesis doctoral ganadora será publicada por la Fundación Arquia en dos volúmenes diferenciados correspondientes a los idiomas español e inglés, con la coordinación de LUB. Este compromiso está condicionado al cumplimiento de los requisitos establecidos por la editorial: 1. El autor revisará la obra y hará los cambios posteriores que sean necesarios; 2. El autor deberá entregar el manuscrito en inglés o castellano (traduciendo del original si es necesario); 3. Los criterios editoriales establecidos exigen que la obra no sea superior a 50.000 palabras (incluidas notas a pie de página, bibliografía y biografía, etc.) y que no contenga más de 300 ilustraciones (sin derechos de autor).

## 9. PROPIEDAD INTELECTUAL

Los originales aportados por los finalistas se devolverán a los autores que lo soliciten. La aceptación del Premio Europeo Manuel de Solà-Morales implica la cesión gratuita por parte del premiado de los derechos de publicación del original en las dos lenguas.

## 7. AWARDS

The best PhD will receive a prize of €7,000. Depending on the quality of the work submitted, the first prize may be shared ex aequo or might even be declared void. Additionally, the jury may consider issuing a number of runners-up. The Prize winner and finalists will receive a diploma.

## 8. DIFFUSION

The winning doctoral thesis will be published by Arquia Foundation at arquia/tesis collection series in two differentiated volumes corresponding to Spanish and English. This will be coordinated by the LUB. This commitment is subject to compliance with the conditions established by the publisher: 1. The author shall revise the work and makes any subsequent changes that are necessary; 2. The author must deliver the finished manuscript in English or Spanish (and translate from the original if necessary); 3. The established editorial criteria require the work to be no longer than 50,000 words (including footnotes, bibliography and biography, etc.) and contain no more than 300 illustrations (copyright free).

## 9. INTELLECTUAL PROPERTY RIGHTS

Finalist's originals will be returned to the authors upon request. The acceptance of the Manuel de Solà-Morales European Prize implies the candidate's agreement to cede, free of charge, any rights of exploitation of the original in those two languages.

卷一百一十五

**Jurat · Jurado · Jury**





**Alberto Ferlenga**

**Architect and Dean of the Università IUAV di Venezia. Chairman of the jury.**

Born in 1954, Alberto Ferlenga graduated in architecture in Milan where he was editor of *Lotus* and *Casabella*. His university career as a design professor began in Milano, continued in Napoli and finally in Venezia where he is now Rector of the IUAV. He has written several books including the *Electa* monographs on A. Rossi, D. Pikionis, H. van Der Laan. At the same time he lectures in many universities around the world and continues his work as an architect. Since 2013 he has been curator of several exhibitions as director of Architecture sector of the Triennale di Milano. Since 2019 he has been appointed national academic of San Luca.



**Han Meyer**

**Architect and Professor of Urban Design at Delft University of Technology.**

Han Meyer (1951) graduated as an urbanist at TU Delft and completed his PhD thesis on the transformation of port cities in 1997. He was working in the urban renewal process at the Rotterdam City Planning Department from 1980 to 1990. Since 1990 he is employed at TU Delft, first as an Associate Professor Urban Design, and from 2001 until 2019 as a Full Professor in Urban Design, Theories and Methods. He published on the fundamentals of urbanism and on the special conditions for urban design in delta regions.



**Carlos Gómez Agustí**

**Architect, representing Arquia Foundation.**

Architect who graduated from ETSAM (Madrid) and patron of the Arquia Foundation since 1999. Member of the Technical Commission of Docomomo since 2006. A practising architect who has received several awards for public social housing programmes. He has participated in round tables, book presentations and lectures at the COAM foundation, ETSAM, Círculo de Bellas Artes, Casa de México, Escuela Arquitectura de Navarra and COAM, among others. Member of the Jury of the XII Biennial of Spanish Architecture and Urbanism 2013 and of the Arquia Thesis Competition in 2013.



**Eulàlia Gómez-Escoda**

**Architect and Professor of Urban Design at the Barcelona School of Architecture. Jury's secretary.**

Eulàlia Gómez-Escoda is an Architect and Urban Designer (ETSAB) with a PhD in Urbanism (UPC). She is Associate Professor in the Department of Urban Design at the School of Architecture of Barcelona since 2008. She is a Postdoctoral Researcher at the Barcelona Urbanism Laboratory, contributor to significant research works related to Barcelona (*Barcelona Metropolis*, 2014; *Cerdà and the Barcelona of the Future*, 2009). Since 2000, she has developed her practice in collaboration with different firms working on public projects of Architecture, Urban Design and Landscaping in Spain and France.

## Candidatures · Candidaturas · Entries

**44 ENTRIES**

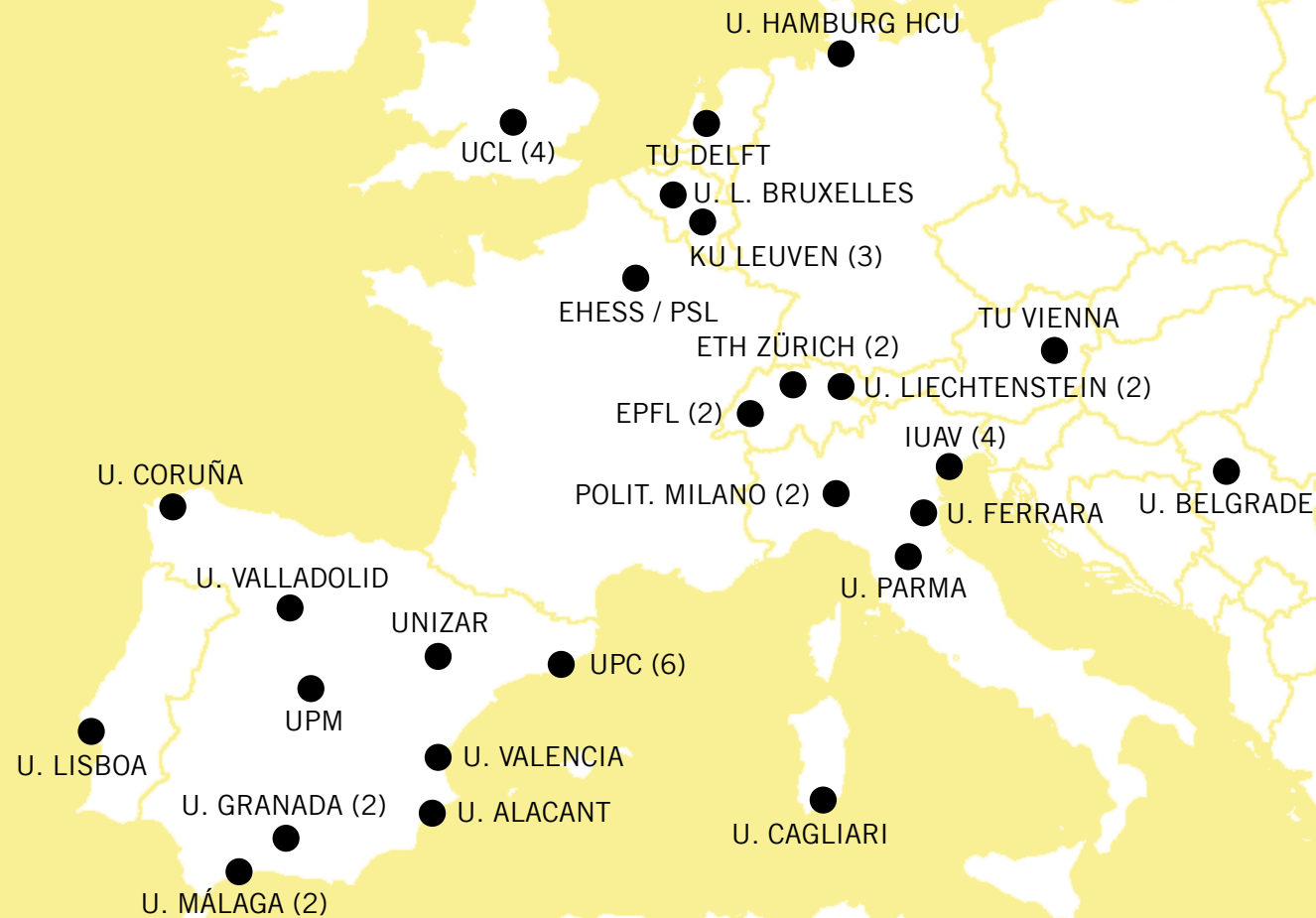
**27 FROM OUTSIDE OF SPAIN**

**26 EUROPEAN UNIVERSITIES**

**from**

**12 DIFFERENT COUNTRIES**





# Veredicte · Veredicto · Verdict

Alberto Ferlenga

Han Meyer

Carlos Gómez Agustí

Eulàlia Gòmez-Escoda

The Reading of the Verdict: ETSAB, 9th June 2021, Barcelona

With its third edition, the Manuel de Solà-Morales European Prize has consolidated its role as an observation point that provides a view of the most advanced urban planning and design research in a contemporary, global context. Furthermore, the award provides anyone who engages with cities and their surroundings with a broad perspective of current contemporary transformations, such as issues related to urban expansion and environmental crises.

Despite its short history, the award serves as a review of the evolution of research in this field, with its ever-increasing complexity and essential cultural contribution to the study of cities. The award complements the development of this new culture within urban studies, providing up-to-date and in-depth insight into urban phenomena and their history, with interdisciplinary frameworks capable of addressing the responsibilities of the environmental crisis and socio-economic inequality. This new culture is centred in Europe, yet it has influenced research methods in many other parts of the world and can today act as a tool for positive urban transformation.

Manuel de Solà-Morales made a vital contribution to this new approach with his ability to combine analysis and design, to connect history with contemporaneity, and to assess real-world contexts with impartial, yet creative insight.

The third edition of the award saw the participation of 43 candidates from 16 countries: Spain, Italy, Serbia, United States, Greece, Belgium, Austria, Romania, Chile, Bosnia, Brazil, Portugal, Mexico, Germany, Switzerland, France. The candidates were supported by professors from leading European universities who, in turn, represent a wide network of academics.

After reading and discussing the theses, the Jury awarded the title of **FINALIST** to four research projects (alphabetical order):

### **JAUME BLANCAFORT**

Title: *Participation and Collective Creation in the Architecture of Lawrence Halprin. The 'take part' methodology in the participatory processes of urban projects*

Supervisors: Juan Domingo Santos, María Elia Gutiérrez Mozo

University: Universitat d'Alacant

The primary objective of Jaume Blancafort's research into the work of Lawrence Halprin is clear from the outset: to highlight, for contemporary urban planning and architecture, the importance of Halprin's participatory methods to urban transformations in the United States, as developed during the 1960s. Starting with case study analysis, the research goes on to investigate the emergence of a 'take part' methodology that encompasses both the knowledge of cities and their design. The methodology questions user-designer and designer-administrator relationships, and the wider urban-architectural culture of the time, simultaneously providing significant food for thought to today's urban planners.

### **JEROEN STEVENS**

Title: *Occupation & City: The Proto-Urbanism of Urban Movements in Central Sao Paulo*

Supervisor: Bruno De Meulder,

Co-supervisors: Nadia Somekh, Ann Cassiman

University: KU Leuven (Belgium)

Jeroen Stevens's innovative and well documented research is backed up by his own experience in the field, and reveals the complexities and contradictions of Sao Paulo. The work centres on the relationship between city growth and the ways in which its buildings and previously abandoned spaces are inhabited. The result is an original portrait of Sao Paulo in which its history is intertwined with contemporary social movements and the occupation of the city's buildings. At the same time, the research proposes an important line of enquiry for future study and a new geography of the city based on cultural practices. This could form the basis for an alternative to the official 'urban planning map', as defined by the ruling classes.

### JOSÉ JAVIER PI CHEVROT

Title: *The City of Donostia – San Sebastian before 1813. Claiming its Presence*

Supervisor: Ángel Martín Ramos

University: Universitat Politècnica de Catalunya, Barcelona Tech

José Javier Pi Chevrot's research addresses a challenging theme, the reconstruction of the history of a city that no longer exists and of which little documentation remains: San Sebastian before 1813, the year it was destroyed by the English fleet. To be able to 'reconstruct' what was lost, the study analyses the city as it is now in detail; alongside the testimonies of the past that survive within it, and documents relating to its history. Using 3D visualization, the research recreates a geography and a history that were partially lost, filling a significant knowledge gap with regard to San Sebastian while, at the same time, experimenting with a new methodology for the field of urban analysis.

### MAFALDA BATISTA PINHEIRO PACHECO

Title: *Fuzeta – A Unique Fishing Village*

Supervisor: João Vieira Caldas

Co-supervisors: Renata Malcher de Araujo

University: Instituto Superior Técnico / University of Lisbon

Following the growing interest in small towns, and in the almost total absence of historical iconography, Mafalda Batista Pinheiro Pacheco's research reconstructs the origins and evolution of the fishing village of Fuzeta, in the Algarve (Portugal). Through the analysis and redrawing of land registry documents, this research project investigates not only the history of the village, but also the development of a traditional construction technique used in its vaulted buildings, comparing it with similar cases along the European coasts of the Mediterranean. The study traces the urban history of a small settlement that 'lacked history', rediscovering knowledge that had been lost and that formed an important part of the identity of the village and its population.

The jury awarded **SPECIAL MENTIONS** to the following four projects (alphabetical order):

### CLAUDIU FORGACI

Title: *Integrated Urban River Corridors: Spatial design for social-ecological resilience in Bucharest and beyond*

Supervisors: Arjan van Timmeren, Machiel van Dorst

Co-supervisor: Jorge Gil

University: Delft University of Technology (TU Delft)

Claudio Forgaci's interesting and well documented research differs from other studies conducted on the Romanian city. This is largely due to its transdisciplinary approach and investigative point of view, which focuses on the most recent aspects of urban transformations. It takes Bucharest's relationship with Dâmbovită and Colentina rivers as the primary cipher to understand the city. Using this relationship as a starting point, Claudiu Forgaci retraces the history that formed the contemporary capital through critical analysis of its urban history and the 'ecological' dimensions of its development. The picture that emerges presents not only an unprecedented vision of Bucharest, but also an outline of the main themes and opportunities that could characterize its future development.

### GIULIA TESTORI

Title: *Quitopia. Collective city-making: participation and autonomy in Quito's urban future*

Supervisor: Paola Viganò

Co-supervisor: Viviana d'Auria

University: Università Iuav di Venezia / KU Leuven

While addressing a specific aspect of Ecuador's social and urban traditions, Giulia Testori's thesis offers a series of reflections on the processes of shared decision-making that characterise global urban development. The research focuses on the relationship between the ancient practices of community participation in urban management and construction, and the inclusion of the concept of *Buen Vivir* in contemporary Ecuador. In particular, the practice of *Minga* (community gathering/working) is investigated in relation to its recent reintroduction across three case studies in Quito, where it is linked to contemporary social movements. In addition to its highly original theme, this thesis also stands out for its striking visual content that diverges from current trends in visualization techniques.

## ROBERTO SEGA

Title: *New Alpine Ecologies – Industrialization and construction of the city territory*

Supervisor: Paola Viganò

Co-supervisor: Gioacchino Garofoli

University: EPFL-École Polytechnique Fédérale de Lausanne

Roberto Segà's thesis deals with a mountain belt that has been largely unaffected by tourism but is currently enduring a profound crisis. The project investigates the area's characteristics, formed in recent decades, to identify possible opportunities for the transformation of its current, critical state. The period investigated covers recent industrialization; the planning-orientated perspective is original and well developed, relying partly on direct observations from a variety of viewpoints, for example from the ground (walking) and from the air (travelling by plane). The research includes comparative studies of similar territories in the Alpine area between France, Switzerland, and Italy; the dissertation concludes by proposing a series of guidelines for their positive transformation. The proposed guidelines are based on respect for the environment and the production of clean energy, addressing the impending emergency and degradation caused by climate change and the current economic crisis.

## TONI VIDAL JORDI

Title: *Atlas of the Port of Maó*

Supervisor: Magda Mària Serrano

University: Universitat Politècnica de Catalunya – UPC

The port of Maó (the main port of the Balearic Islands) and the city that surrounds its deep inlet are analysed by Toni Vidal Jordi's study in a detailed, 'anatomical' breakdown of their various parts. The research work is divided into two volumes: the first resembles an exhibition catalogue with examples and analysis of prevailing architectures, starting from the beginning of the city's architectural history to the present day; the second volume shifts the perspective away from individual works of architecture to investigate broader, more complex issues raised by Maó. The research work gradually 're-composes' the history of the city starting from the special relationship between the port infrastructure and the urban settlement. Construction projects (completed or otherwise), political and economic events, and current criticalities are analysed. In the naming of his project, Tony Vidal Jordi uses the term 'Atlas' with explicit reference to the Warburg Atlas, however the research can be understood in a variety of ways: as an in-depth interpretation, a guide, and a catalogue. Yet overall, the work is characterized as a project undertaken by an architect for whom Maó was not only the subject of research, but also the background to his life and work.

Finally, the jury awarded the title of **WINNER** of the Third European Solà Morales Prize to:

## **WIM WAMBEQ**

Title: *Forest Urbanism in the Dispersed Flemish Territory*

Supervisor: Bruno de Meulder

University: KU Leuven

The Thesis explores the possibility of reforesting urbanized landscapes. The dispersed urban patterns of the Flemish territory function as a laboratory to test this possibility. The research addresses and shows that deforesting and the need of reforesting is not only a matter of regions like the Amazon river, Central Africa or Borneo, but also relevant for Europe. Especially in dispersed urban landscapes, as there are many in Europe, reforestation is not only possible but can also deliver new qualities, spatial coherence and ways of use of these landscapes. The thesis shows that Forest Urbanism can be a knife that cuts both ways: contributing to the enhancement and variety of ecosystems and improving spatial qualities of sloppily organized urban territories.

The approach and the results of the thesis are original, refreshing and surprising, and challenge theory and practice of urbanism to reconsider the urbanized landscapes of Europe in a fundamental way.

The jury is very impressed by the way how PhD students of European universities have picked up the changing conditions of urban development and the changing agenda of urbanism, by addressing topics in relation to climate change, economic and energy transitions, social equity, and by the variety of innovative approaches and original ways of thinking. Next to this attention for new development and innovation, it is impressing that most of the theses focus on the way how the new conditions can be related to long term historic processes of landscape structures and urban form, so that an ambition to combine ‘modernization’ and innovation with historic continuity can be observed through the research.





**winner**

## Forest urbanism in the dispersed Flemish territory

**Author: Wim Wambecq**

Supervisor: Prof. Bruno De Meulder

University: KU Leuven, Belgium

Jury members: Omer Vander Biest (KU Leuven)

Cecil Konijnendijk (U. British Columbia), Guido Geenen (KU Leuven)

Paola Viganò (EPFL Lausanne, IUAV Venice), Kelly Shannon (KU Leuven)

## Research introduction

Flanders is one of the least forested regions of Europe with a forest cover of about thirteen percent or a total amount of 185.594ha, based on the most 'optimistic' measures<sup>1</sup>. The forest evolved from a common and nobility ownership towards a predominantly private forest stock (over 70%) and is increasingly fragmented. The state of the forest over the last two decades, since the regionalization, is complex and full of contradictions. The 1990 forest decree protects all forests, regardless of size<sup>2</sup>. In 1996 a "desired forest structure" was designed for Flanders based on the multiplicity of forest functions: ecology, leisure, buffering...<sup>3</sup>. The vision is clear and strategic. With the spatial structure plan of 1997, a forest compensation law was installed that actually aided deforestation, in which the strategic vision was reduced to a forest land-use increase of 10.000ha (50.000ha was asked for), without clarifying where and how this was to be realized. In addition, the quantitative and statistical discourse has overtaken the qualitative and strategic development of forest. Despite the quantitative focus, there is no consensus yet, 29 years after the forest decree and 22 years after the structure plan, about the measuring methodology, resulting in unclarity concerning the increase or decrease of the forest stock. Through the mechanism of the forest compensation (that de facto almost always is a financial retribution to a forest fund that remains till today ineffective) a net reduction of forest was registered<sup>4</sup>.

<sup>1</sup> Bos+. 2018. "Opinie I Komt Het Ooit Nog Goed Tussen Schauvliege En De Bosopper-vlakte?." *Deel I*: February 19, 2018.

<sup>2</sup> Overheid, Vlaamse. 1990. *Bosdecreet*. Brussel: Brussel Ministerie van de Vlaamse Gemeenschap. Dienst Waters en Bossen.

<sup>3</sup> Map 6 of the desired forest structure. Mens en Ruimte. 1996. "De Gewenste Bosstructuur Voor Vlaanderen. Visievorming, Selectie En Globale Afbakening/Differentiatie Voor De Gebieden of Elementen Op Schaal 1/50.000 Door De Overheidssector "Bosbouw", ed. by Ministerie van de Vlaamse Gemeenschap: Animal - Afdeling Bos en Groen.

<sup>4</sup> Vermeulen, F. and Allaert, G.. 2007. "Ontbossing in Woonparken En Boscompensatie". U Gent: 16.

## Soil as a qualifier

In current practice, forests are considered one of the main land-uses together with agriculture (including pasture, grazing lands...), urban and wasteland. On a quantitative macro-scale and since reliable mapping has been executed (1775, Ferraris mapping), the forest cover remained relatively stable in the last two or so centuries with minor fluctuations. A geographic analysis shows that the total accumulated forest cover in that period was more than double of the current forest extent. In a period of about 200 years, the forest moved around. The perceived quantitative stability is thus at least partially misleading.

The seven discussed cases taken over a geological cross-section of Flanders bring together the different dominant soil types of the dispersed territory. The section from the low coast, the polders, the transition from low to middle-high Belgium is not only a topographic gradient from low to high, but equally a soil gradient from heavy to fine grain soil textures that resulted from the last period of quaternary wind-induced wechsellian deposits from the coast inwards. The heavier sands were deposited close to the coast, while the silt soils mark the transition from Flanders into Wallonia. Each of the cases covering the soil gradient contributes to a piece of the forest urbanism genealogy of the dispersed territory.

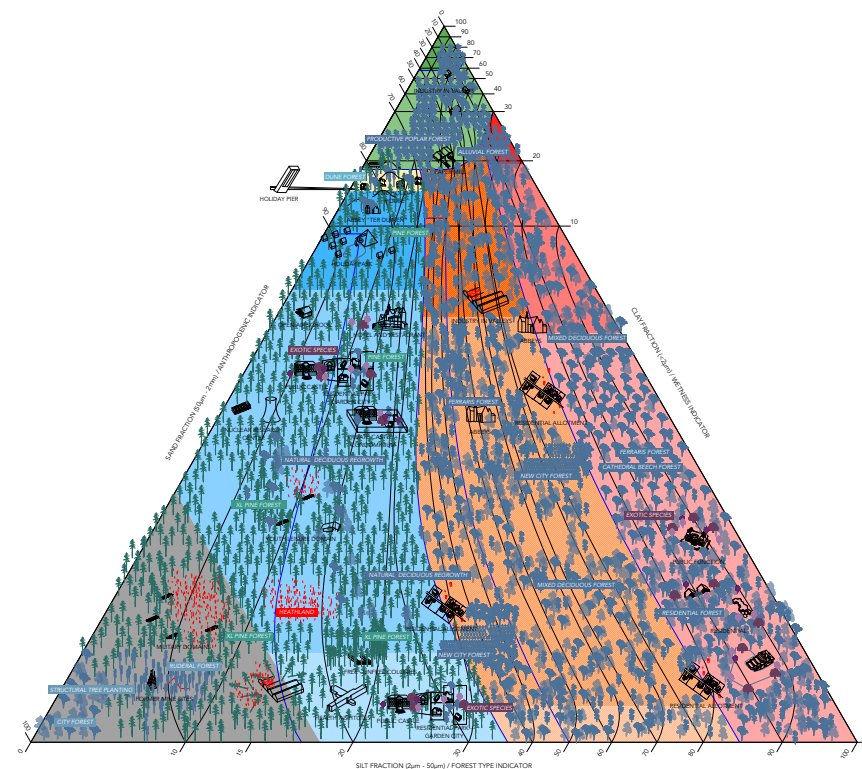
Soil is indeed a fundamental qualifier for forest presence, in extension for any land-use. In this dissertation, the soil texture class has been retained as the main qualifier. Soil determines the usability of the land. Human occupation has been grounded consistently in the soil type, and the many issues regarding the urban metabolism of Flanders are related to man-made alterations and impacts on the level of the soil, aggravated or remediated depending on the soil texture class: soil sealing, pollution, erosion, infiltration, fertilization, soil production, soil authenticity and, the forest has a fundamental important role in all of these soil processes.

The establishment of forest - natural or man-made - and the manipulation, cultivation or occupation of the soil are intrinsically related to the dynamics of usability. The isolation of the forest evolution in different soil texture classes shows how forest presence cyclically changes in a rotation with wasteland and agricultural land. The urban grew completely within and in between these land-uses, resulting in the dispersed urban condition. The cases show that a significant amount of the urban appeared and appears in forest urban figures – an interlaced state of the urban and forest - that are produced by or are producing the changes in forest presence, both deforestations as afforestation. Although forest is considered a land-use, it is in its intermediate and transitional role between and within land-uses – both in time as in space – that the forest valorises and activates the territory. Just as forest once covered the whole Flemish region, forest is interstitially present through all the different land-uses, exercising different beneficial roles that change over time.

## A geological section

The main soil textures that are discussed in the cross-section of Flanders from the coast to Middle-High Belgium are: dunes, clay (polders and other), sand (from wet to dry in the higher Campine plateau), loam and silt. From a quantitative perspective the subdivision between wet, humid or dry soils indicates differences, but analysis shows that this variation has not been significantly determining for forest-urban dynamics.

The high diversity of soils on the macroscale of Flanders – from dunes, polders, clay, sand, loam, silt... - has created both the base for the cyclic dis- and reappearance of forest. The diversity allowed temporal flexibility. When the role of forest on silt soils declined, the sandy soils were colonized by afforestation, allowing for a continued, yet changing role for the forest on different locations. Within

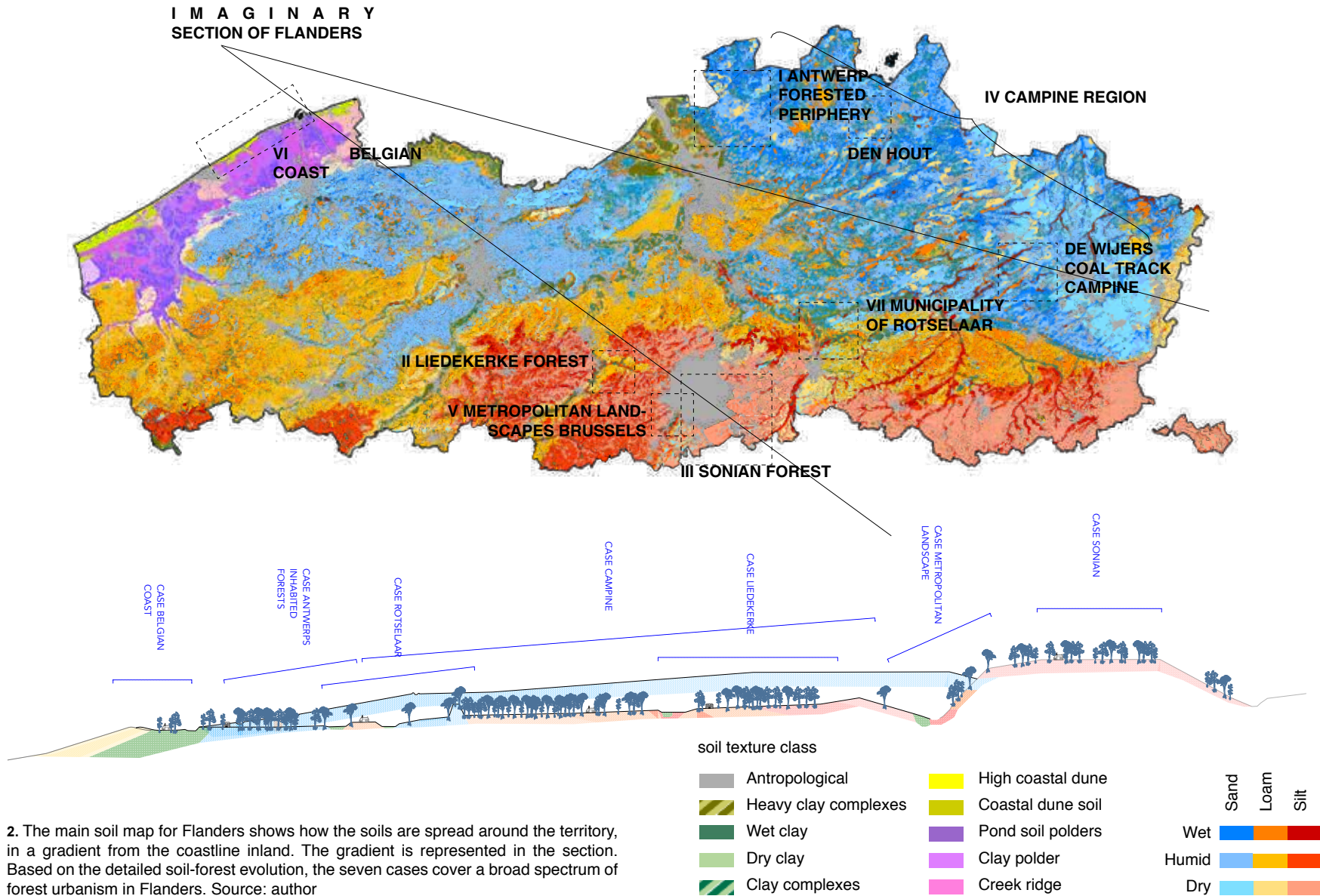


1. Forest Urbanism Soil Texture Triangle: the conceptual representation of the thesis  
Source: author.

the landscape of changing forest presence, forest type, forest roles, the urban found various diverging ways to appropriate the forest (space), see image 2.

## Forest urban metabolism

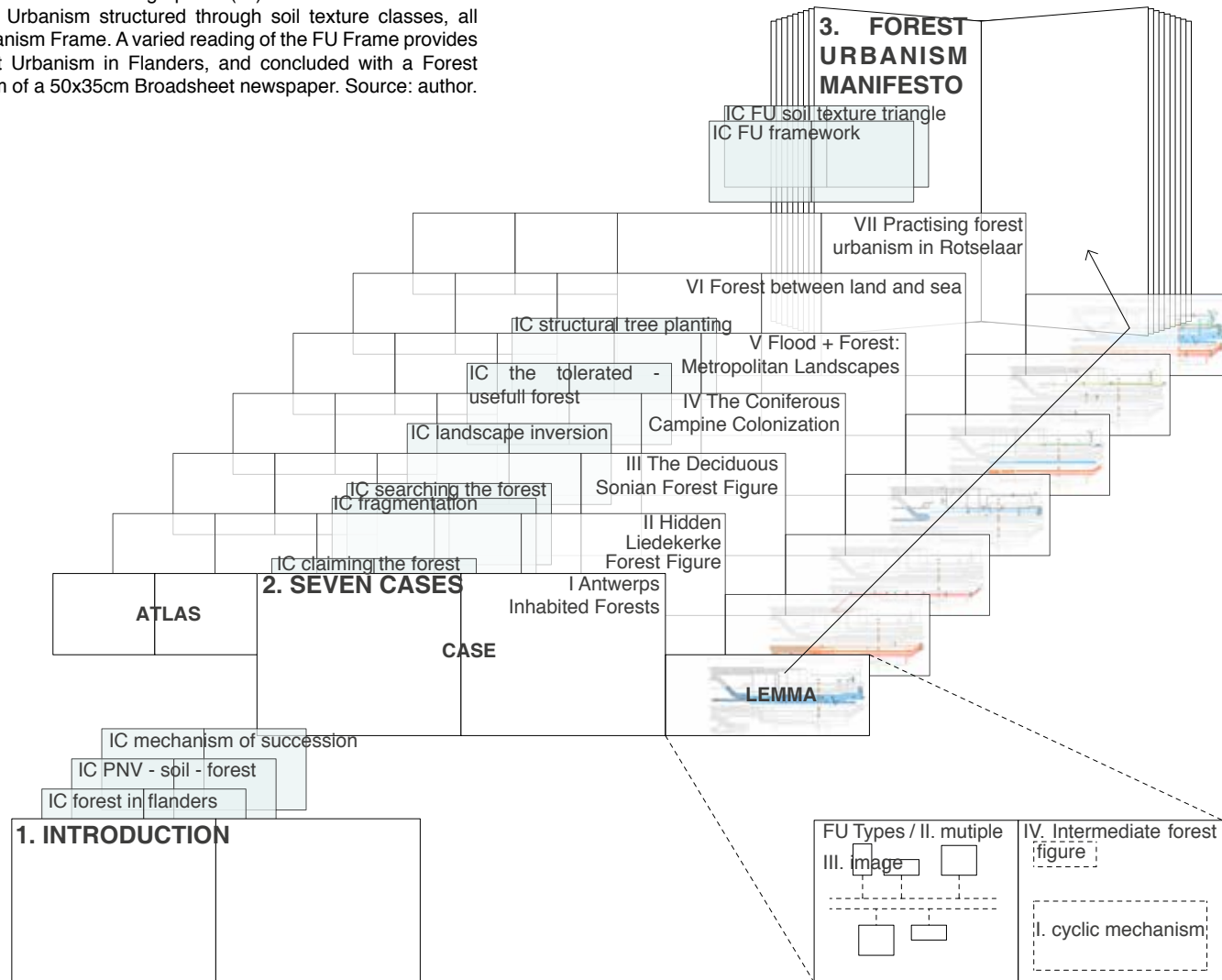
The seven cases, each relating to specific soil conditions, together build up a critical understanding of the relation between the territory and forest, summarized in the Forest Urbanism Frame, which then serves as a base to explore the expansion and/or intensification of the forest-urban interface, with the objective to remediate the ecological problems of the territory.



2. The main soil map for Flanders shows how the soils are spread around the territory, in a gradient from the coastline inland. The gradient is represented in the section. Based on the detailed soil-forest evolution, the seven cases cover a broad spectrum of forest urbanism in Flanders. Source: author

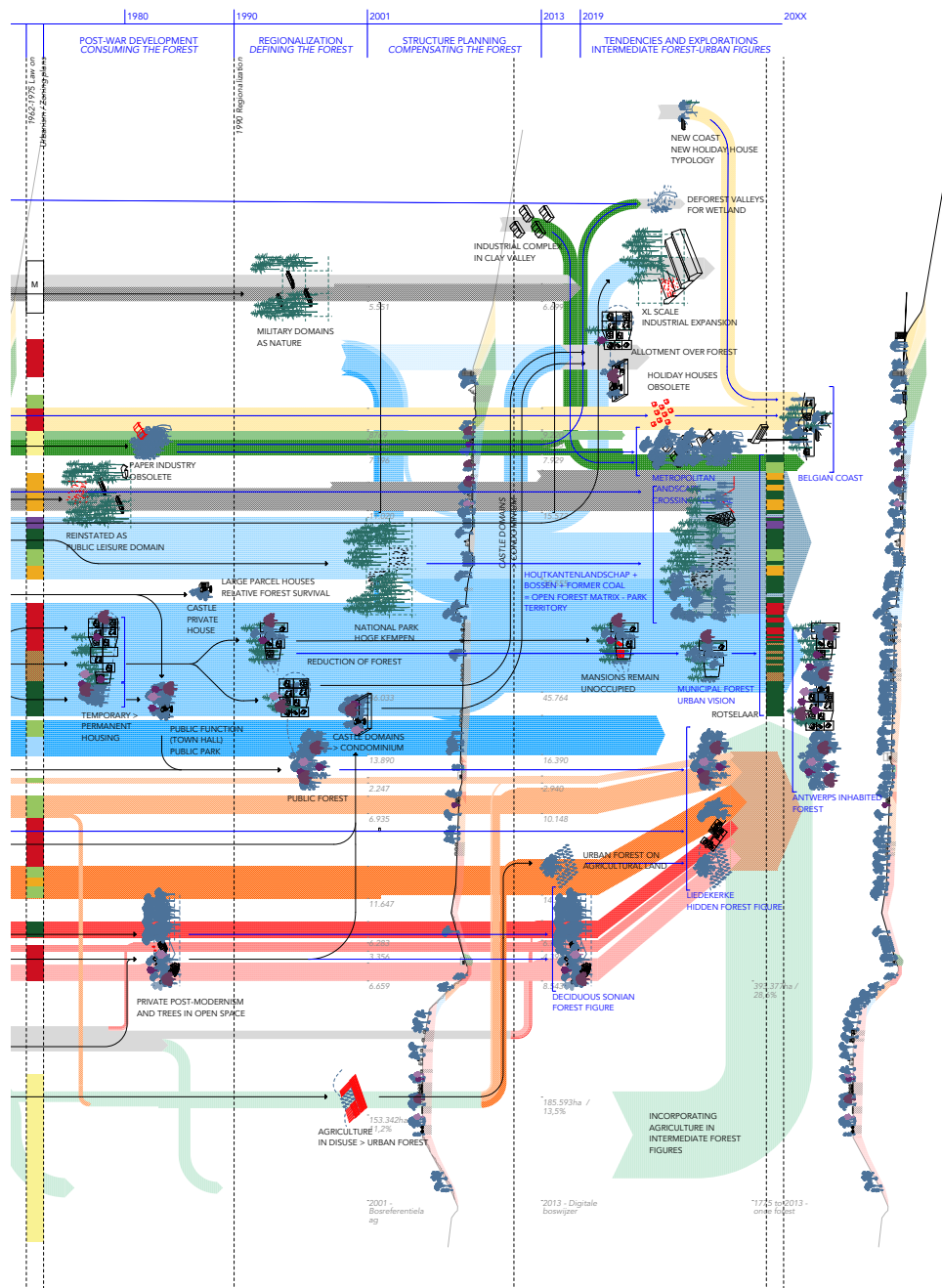


3. The thesis structure based on research on seven cases, complemented by interpretive mapping in the Intermediate Cartographies (IC). The seven cases build a knowledge base for Forest Urbanism structured through soil texture classes, all consolidated in the Forest Urbanism Frame. A varied reading of the FU Frame provides different viewpoints on Forest Urbanism in Flanders, and concluded with a Forest Urbanism Manifesto in the form of a 50x35cm Broadsheet newspaper. Source: author.









## Forest Urbanism Frame (Figure 4)

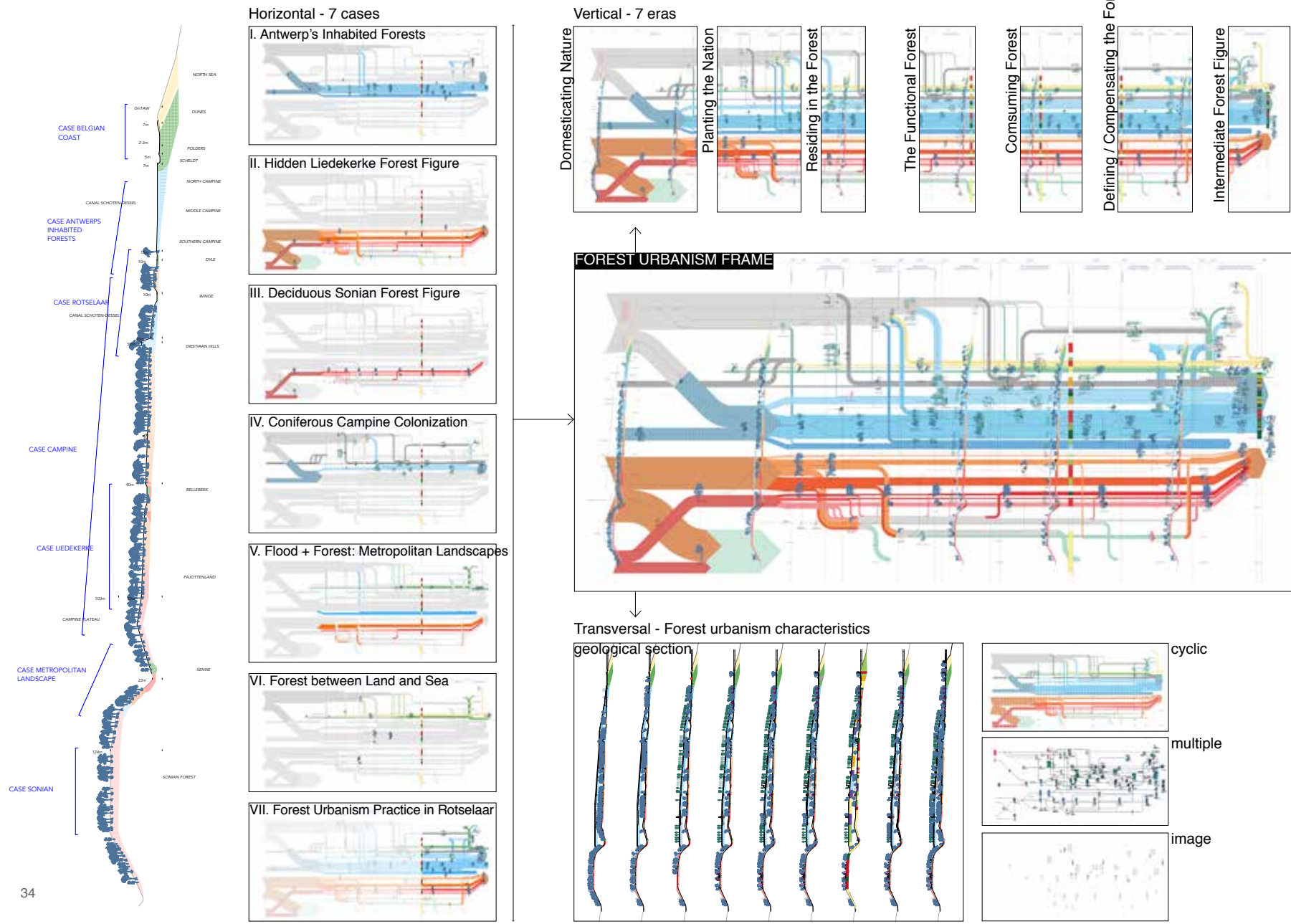
The research, conducted through a sequence of seven cases and a series of intermediate cartographies, is grounded in a body of knowledge on forest urbanism in Flanders. The seven cases were selected carefully to represent the different soil texture classes and alterations in the dispersed Flemish territory.

The produced knowledge is compiled in and represented by the Forest Urbanism Frame (FU Frame). The combination of seven representative cases into the FU Frame therefore represents Forest Urbanism in the dispersed Flemish territory. The FU Frame is not rigid as variations of cases exist that can consecutively be added to the FU Frame.

The FU Frame can be dissected as stories on Forest Urbanism in the dispersed Flemish territory that are potentially expandable beyond this context.

The geological section that brings the cases together in a typical section over the dispersed Flemish territory serves as a canvas of this FU Frame that is developed over time. The canvas is understood from historic perspective by looking back in time and projected forward to evaluate potential futures, suggesting that a deep understanding of historic forest-urban dynamics is necessary to be able to envision the future of the forest in the territory.

5. Forest Urbanism Frame: its dissection allows for different readings. Source: author.



To expose the body of knowledge the FU Frame is dissected (Figure 5):

### 1. Horizontal reading: 7 cases

The cases cover a range of soil texture classes over a section in Flanders from the coast to Middle-high Belgium. The seven cases can be read diachronically by following a horizontal line. Each horizontal line documents the evolution of forest and settlement for a specific piece of the territory.

### 2. Vertical reading: 7 eras

The frame assembled with the different timelines of quantitative and qualitative transformations can subsequently be read vertically. The geological section then appears as it is in a particular era. Seven eras are identified in which the forest-urban interaction has a certain consistency.

### 3. Transversal: Forest Urbanism Manifesto

Finally, and ending with a forest urbanism manifest, a transversal reading of the frame can be made. Three main characteristics of forest urbanism appear: forest and urban cyclically coexist and influence each other; forest and urban form spaces of multiplicity; the image of the forest drives forest urbanism. The forest urbanism manifesto also comes back to and advocates for a new phase for forest urbanism in Flanders,

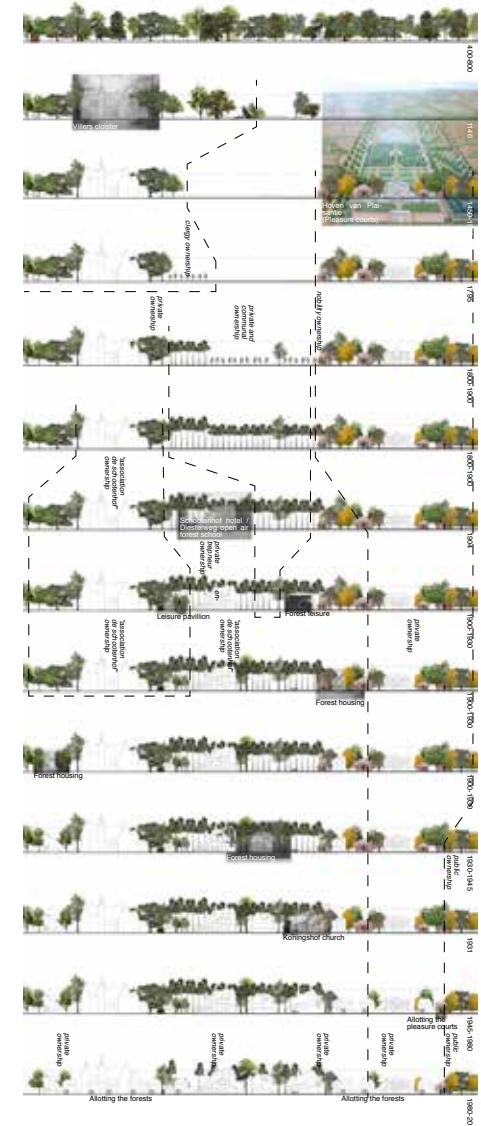
indicated as the next phase in the vertical reading: the intermediate forest figure as a potential concept to rethink and strengthen the dispersed Flemish territory, through the forest as integral part of the territory.

### Example horizontal reading: case of Antwerps Inhabited Forests (Figure 6)

The changing dynamics between forest and urbanism that were discussed in the case of Antwerp's north-eastern hinterland (and especially Schotenhof) form a unique history. Some intriguing elements and constants in the relationship between forest and urban planning came to light. Time after time they were raised and they entice us to move to a more general hypothesis for a new vision on (parts of) the infamous nebulous city that we propose to call forest urbanism.

In each of the episodes discussed in the case (always with a characterization of Schotenhof as pars pro toto for the north-east of Antwerp) one can recognize an almost inescapable interplay between forestry and urbanism (in the broad sense of the word: the organization of human settlements).

In fact, the history of the northeast of Antwerp which was reconstructed in this case is in the first place a retroactive manifesto for forest urbanism.



6. Research-by-Design on Forest Urbanism in Antwerps Inhabited Forests: a sequence of forest-urban exchanges. Source: author.

Example vertical reading: Residing in the forest, 1850-1945 (Figure 7)

(Cyclic)

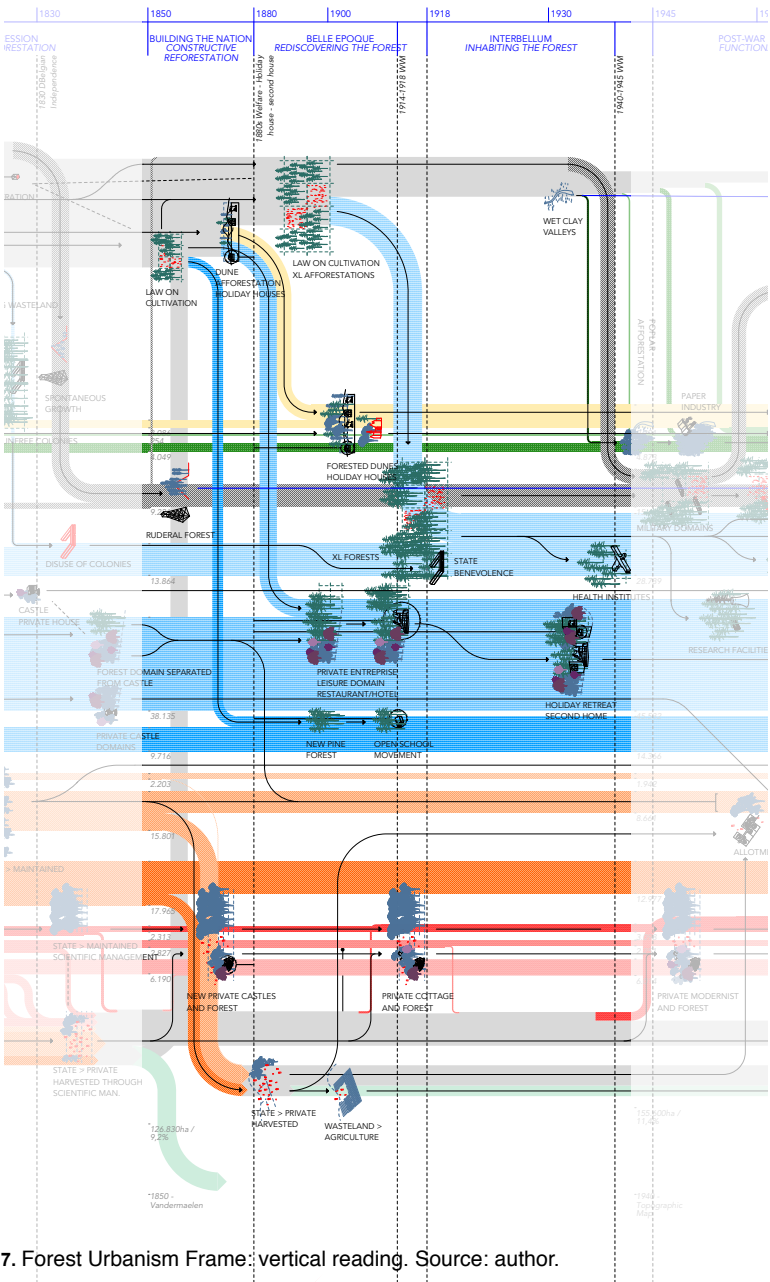
The notion of a “return to nature” became more dominant with the Industrial Revolution, but from the beginning of the nation the pristine nature of the forest called out for the wealthier part of the population. The sporadic trips to the forest became systematic through the appearance of holiday houses and leisure functions as restaurant or a hotel in the forest. The insertion of the holiday houses in the forest was regulated in a collective pact to safeguard the forest’s character. Forest was invaded, but also appropriated and taken care of.

(Multiple)

Forest was seen as the perfect environment for a variety of leisure and health related activities.

(Image)

During this period the notion of leisure spreads structurally. Forest is the pristine nature that can remediate the impact of the Industrial Revolution.



- QUALITATIVE**
- FOREST INFRASTRUCTURE TYPES**
- radial-centric-star-shaped
  - “tire-et-aire”
  - small orthogonal
  - large orthogonal
  - rectangular
  - organic
  - romantic-landscape
  - topographically
  - hierarchical
- FOREST TYPES**
- mixed deciduous forest
  - cathedral beech forest
  - deciduous forest with exotic species
  - new plantation for city forest
  - productive (poplar or other)
  - deforested - wasteland
  - ruderal forest
  - mixed dune forest
  - coniferous forest
  - natural deciduous regrowth

- QUANTITATIVE**
- WASTELAND (suggestive)
  - AGRICULTURE (suggestive)
  - FOREST
    - soil texture
    - class amount
    - total forest amount. Flanders Absolute / %
    - measuring method and year
- Estimated amounts (pre 1775)
- Sand
  - Loam
  - Silt
- Measured amounts (post 1775)
- Wet
  - Humid
  - Dry
  - Antropological
  - Wet clay
  - Dry clay
  - Dunes

7. Forest Urbanism Frame: vertical reading. Source: author.

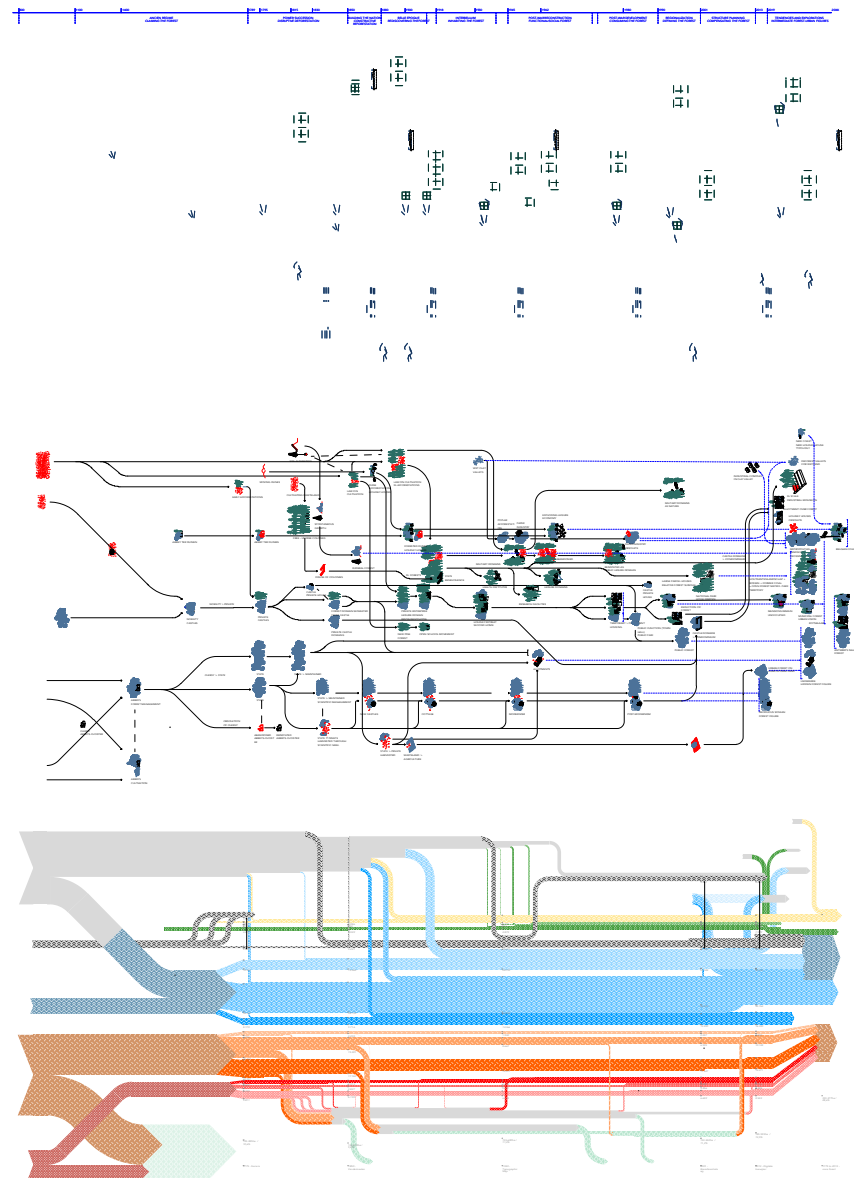


## Transversal reading / Conclusion (Figure 8)

The relation between forest and urban has been explored in seven case studies that cover the range of the main soil texture classes across the section through Flanders. A detailed forest evolution per soil texture class revealed the dynamics of forest disappearance and reappearance over time. Macro-statistically the forest cover remains relatively stable, but this only hides the dramatic transformations across the territory. Through the seven case-studies a grounded body of knowledge is developed and then takes the form of a forest urbanism framework. It can now serve as a navigation tool for exploring the forest urban relations in Flanders.

The manifesto synthesizes observations from the seven case studies into three main characteristics of forest urbanism (FU):

1. forest and urban are cyclically intertwined;
2. forest and urban find each other in and are by themselves environments of multiplicity; and
3. the forest urban relation is driven by the image of the forest.



8. Transversal reading: manifesto (conclusion). Source: author.

Besides these general characteristics forest urbanism also seems to lead to a particular spatial organisation. The process of interaction between forest and urban seems to always generate an “intermediate forest figure”, an intermediate form of (re)producing a new territory by identifying a collective scale where the previous three characteristics are clearly defined and present within a spatially identifiable area.

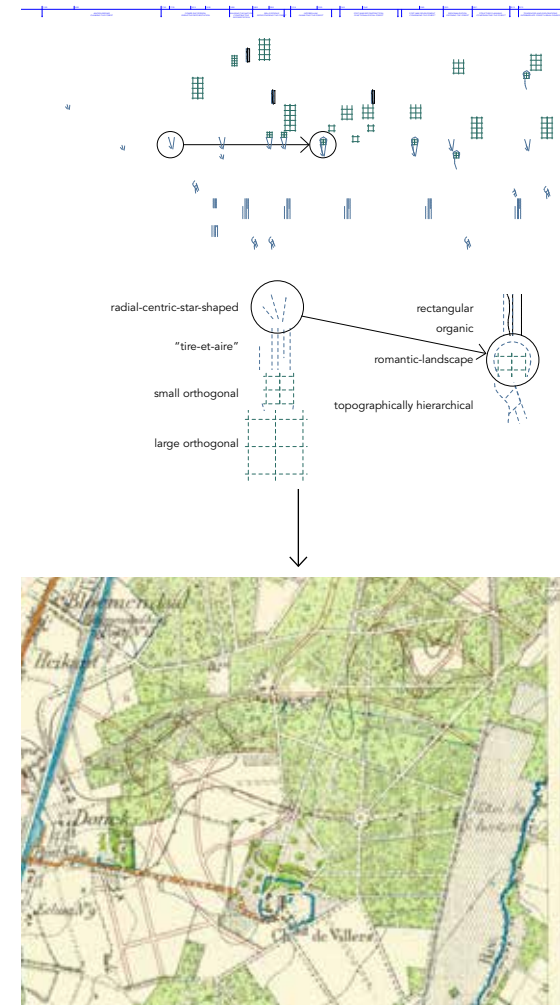
## 1. Forest and urban cyclically exchange

The detailed forest evolution per soil texture class reveals the forest’s dynamic nature. Forest has continuously disappeared and reappeared on the same, but more often on different locations of the territory. This often resulted in the physical appearance of what we call a “forest urban type” (from here onwards called FU type), i.e. urban development inseparably connected to a (particular type of) forested environment and mostly the result of intentional processes.

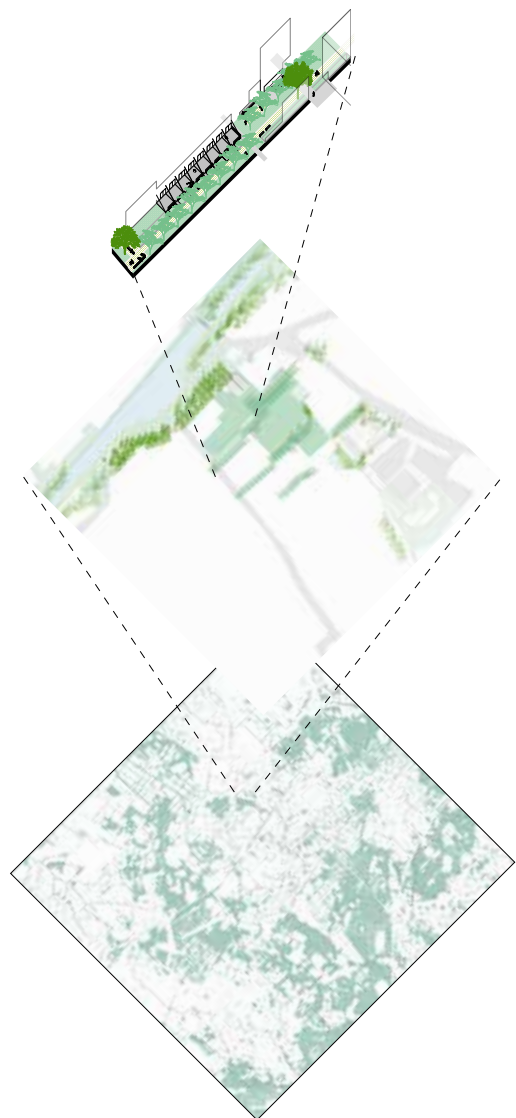
The dispersed and mixed condition of forest and urban initiated cyclic processes: clearings were made in the forest massifs that then gradually transformed into forest fragments; but those fragments were also extensively claimed, protected, maintained and restored. The process of deforestation was accompanied by a process of forest

preservation from the very beginning of settlement development (including agricultural and urban development) within the dispersed territory in the making. Forestry and urban processes have always been an inherent part of the dispersed territory’s urban ecology. The forest in the dispersed Flemish territory is deeply embedded in its development history.

What lingers in the cyclic motion of forest urban changes influences the future. The forest’s management – with its wide range of techniques – generates spatial structures, that subsequently are reused, and thus become urban structures and vice versa (Figure 9). Structure, the element that endures, is in a way de-functionalized, and becomes polyvalent. Mumford would have said polytechnic.



9. The temporal frames: the forest and urban leave traces of their logic organization, which is often appropriated in the next development phases. The superposition of these phases create new forms of forest and urban structuring. Source: NGI, 1948.



10. Forest Urbanism can gain meaning in (relation to) the urban by inserting structural tree planting as part of a forest structure, that is part of a forest ecosystem. Forest Urbanism can be cross-scalar if the forest-urban relation is valorized on all scales, case Campine, Den Hout. Source: Midi, 2017.

## 2. Forest and urban form a diverse, complex and multiple environment

Both processes of deforestation and reforestation build a forest urban realm. Since the processes never reach completion, traces are left behind that are mixtures of urban and forest. It is often the forest spatial management system that is adopted by the urban processes. The forest (management) structure is easily overwritten by new (management) systems that reflect society's changing needs. The new paradigm is easily absorbed by the forest and forms an addition to the palimpsest. Over time this results in an increasingly complex forest urban mixture.

### *Multiple functions: forest can be a complex urban environment*

The diversity of FU types is directly relatable to the urban forest's roles. In the "spiritual forest" the abbey found a perfect place for meditation; in the forest of "the great escape" holiday houses, holiday parks and campings found a pristine nature, and so on... For each possible role of the urban forest, an urban function has effectively appropriated the forest to intensify this role in a forested environment.

### *Multiple scales*

Forest urbanism works on multiple scales. As urban forestry is the management of urban trees on streets, in parks and on private yards, and the management of urban woods and woodlands, forest urbanism can act through the trees, the woodlands and the woods (Figure 10).

### *Multiple forest architectures*

The ancient intertwining of forest and urban processes also builds on the architecture of the forest. Forest management system and infrastructure, as well as the choice of tree species created a vast range of architectures of the forest, i.e. the forest as a space of notable size with a certain type of trees, certain height, tree density, canopy cover, fullness and transparency, a particular sequence of forest floors, etc. The combination of these elements constitutes the library of forest types.

### 3. Forest urbanism is driven by forest image

As mentioned, through the urban and forest processes complex lineages of FU types grew that increasingly complexify and multiply. What truly set the mechanism in motion, what drives forest urbanism, is what the forest represents: its image of a pristine nature. The act of seeking and being inside this nature has, over time, been a constant, although the act itself did not remain constant.

#### *4 acts of reenacting domestication of nature*

Throughout the case studies four acts of domestication were identified (Figure 11).

The first is the act of taming the wild by intervening in an existing landscape to allow the carefree wandering inside. The true act of taming retains an image of authenticity as original landscape processes continue to exist after the act. The forest itself remains wild. A second domesticating act surges from within the image itself, rather than directly in the original landscape. A third act is in fact a forest ambiguity. The search for a divine nature, an earthly paradise, drives people towards the forest. Yet many ultimately perceive the forest as a “dark” place – also nowadays – and reduce the forest. A fourth and last act of domesticating is sym-

bolically keeping the forest within the urban, where it is under complete control. In the complete absence of forest, the domestication cannot take place, but is simulated.

### 4. The intermediate forest figure

In all of the case studies, whether they contain actual design or not, the future relation between urban and forest seems to be handled best through “intermediate forest figures”. These are defined as the systemic appearance of a palimpsestic transformation of FU types within an identifiable space, based on the cyclic exchanges between forest and urban; their intertwined complexity; and a commonly supported forest image. In a sense they are forest expressions of the notion of “intermediate natures” coined by Michel Desvigne.

#### *Understanding the forest urban palimpsest*

As the intermediate forest figure is the result of century-long processes that remain latently present in its spatial layout, it contains a historic validity. Any new intervention or development should be aware of the coherence and understand that its processes are ongoing.

11. The gradual degradation of the forest image quality in places as the Heikantberg in Rotselaar over time (chronologic order of building periods, from top to bottom: 70s - 80s - 90s - 2000s). Source: author.







12. The reshuffling of building rights from urban expansion areas towards more productive and qualitative living spaces in relation to the forest, also allows for strengthening the forest itself. A new mode of transport based on soft mobility can grow on the soft traces of forest infrastructure to de-congest the forest of heavy traffic. The Intermediate Forest Figure then serves as the space of collaboration between different stakeholders that negotiate a common vision. Here, through a neutral committee, the use of the land is negotiated and balanced with the forest as structuring element. (Liedekerke case)

### *Intermediate in scales*

The intermediate figure is able to appeal to a strategic level at the regional scale but is equally able to ground itself in contextual situations, inexistent today.

The intermediate forest figure - ultimately anchored as it is, one way or another, on soil texture classes - usually supersedes the scale of generic urbanization as ribbon development or allotments. Its scale can therefore be strategic when aiming to re-configure the urban dispersion that crosses or lies loosely related to the forest figure, while simultaneously realizing strategic forest structures.

### *Intermediate ecology: between de- and reforestation*

Structural exchanges between urban and forest within the frame of the intermediate forest figure can reframe the compensation tool and increase the quality of the development through their entanglement. The main question would shift from “how much to compensate?” to “how to relate forest to the urban in order to generate a rich environment (ecologically and urban)?”, or a shift from solely quantitative to an also qualitative discourse.

### *Emancipatory intermediate*

The intermediate forest figure represents more than the mere creation of a common forest. At its scale it represents different stakeholders and incorporates them in a common vision (Figure 12). The intermediate forest figure is an intermediate platform of negotiation within which strategic decisions can be made and supported by stakeholders. It can therefore become an emancipatory device towards a more commonly supported territory.

### *The intermediate forest figure as a vision*

First, the forest imaginary<sup>5</sup>. The intermediate forest figure must be imagined and collectively appropriated. The forest can be the incentive for the inhabitants of the territory to contribute to a new territory. The forest has proven that, as natural capital and a common, it is able to unite inhabitants from all backgrounds.

### *Intermediate territory?*

The incomplete process of urban formalization - the eternal emergent nature of the dispersed urban territory - and the forest's resistance leaves infrastructure

<sup>5</sup> In analogy to Dan Handel's “First, the forests” exhibition for CCA. Dan Handel, ‘First, the Forests’, (Canadian Centre for Architecture (CCA), Montréal, Canada, 2012).

often in a unformalized state. The dispersed territory's generic urbanization force did not penetrate the forest figure. In addition, the intermediate forest figure often complements clusters of urbanization or more formal urban spaces as a soft, ecological continuity with unformalized infrastructure hanging loosely together, without any operational collaboration. Surely the model of a forested park territory as proposed by Bart Muys<sup>6</sup> could emerge out of the intermediate forest figure to restructure the typical dispersed urbanization (Figure 13).

Foresturbanism is not necessarily ubiquitous but organized through the intermediate forest figures. It does not pretend to solve all the problems of the dispersed Flemish territory, but it can be, or should be at least part of the solution when considering the ecological crises at hand impacted by climate change. Several intermediate forest figures are identified through the case studies, but the methodology of looking at the forest-urban relations as presented in the dissertation can be used to identify many more.

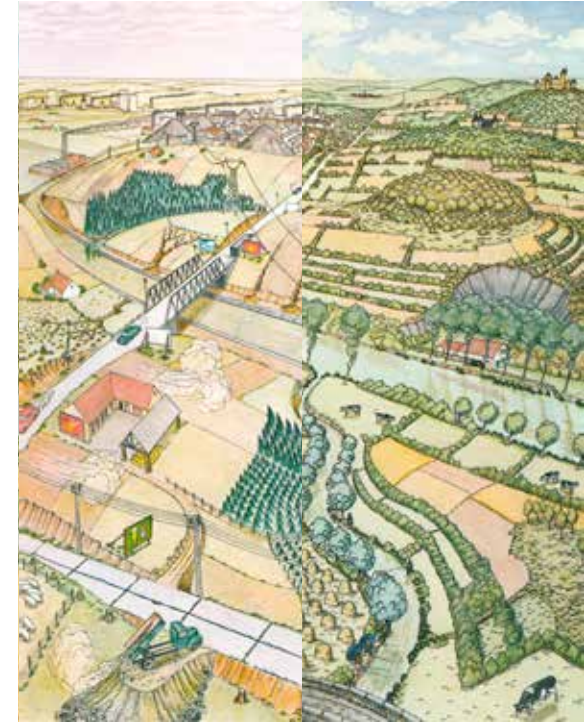
<sup>6</sup> "Parkstad", terminology used by forestry professor Bart Muys in an article in 2002, Bart Muys, 'Bosbeleid in Vlaanderen Van Heden Naar Toekomst', Oikos : politiek, milieu, cultuur. (2002).

## 5. An open-ended FU frame

The genealogy of forest urban figures, the conceptual characteristics of cyclic interaction, multiplicity and image, and the notion of the intermediate forest figure based on the different soils of the dispersed Flemish territory are summarized in the open-ended forest urbanism frame. The FU Frame can be used to look at other places of the territory and explore, taking soil as base, what kind of forest urban dynamics might have existed, adding to the palimpsestic history - and future - of the dispersed Flemish territory. The frame brings together 97% of the forests through soil; and through the seven case studies all soil types were dealt with. Yet, the case-based research doesn't exclude other cyclic motions, multiple other figures or forest images to exist, or intermediate figures that divert from the ones described here. The framework doesn't pretend to be exhaustive. It rather is a methodological invitation to further explore the forest urban relation, and to add to the framework.

### *Forest urbanism and urban forestry in Flanders*

Forest urbanism is a positive strategy to approach urbanism in the dispersed Flemish territory. It attempts to raise awareness and attention to the forest as a fundamental



### 13. What kind of territory do we strive for?

Duvigneaud and Tanghe's iconic drawings about the urban ecology of the territory and the importance of understanding the use and design of the landscape, and in that the obvious role of trees and forest. Two scenarios lie before us, dramatically mirrored (in their original version, here adapted for the summary).

On the left the worst scenario. Are we arriving there? On the right a future territory built through the systemic application of intermediate forest figures.

Source: Duvigneaud, Paul. 1974. *La Synthèse Écologique: Populations, Communautés, Écosystèmes, Biosphère, Noosphère*. Paris: Doin.

piece of the territory, and that is under siege despite support from regional government, to be included in the field of urbanism. In 2002 Bart Muys, a forest professor, used the terminology of a “park territory” to think about the position of forest in the territory and how forest policy should evolve<sup>7</sup>. It is at least remarkable that since then this dissertation is one of few – if not the only – that fully incorporates forest in the urban thinking, in urbanism and urban planning in extension. For the sake of the forest and the territory, the incorporation of the forest into urban thinking must be complete and continuous.

In that sense, forest urbanism can contribute significantly to the goals of urban forestry and vice versa. The concepts of forest making within urbanism are based on principles of urban forestry where the forest can provide a wide range of functions to the urban. Any forest in the dispersed territory of Flanders can be considered an urban forest. Forest urbanism on the other side can provide a framework (the intermediate forest figure) and tools (as building right pooling, urban design strategies related to building in relation to the forest...) of intervention that strengthen the position of the forest in the territory in a way that is far more strategic than urban forestry can realize solely.

<sup>7</sup> The terminology used was “parkstad”, or “park city”, for Flanders seen as “park territory”. Muys, Bart. 2002. “Bosbeleid in Vlaanderen Van Heden Naar Toekomst”. *Oikos: politiek, milieu, cultuur*. 3.

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# mentions

[alphabetical order]

## Integrated urban river corridors: spatial design for social-ecological resilience in Bucharest and beyond

Claudiu Forgaci



## Quitopia. Collective city-making, participation and autonomy in Quito's urban future

Giulia Testori



## New alpine ecologies. Industrialization and construction of the city territory

Roberto Segal



## Atlas of the Port of Maó

Toni Vidal Jordi





# mention

## Integrated urban river corridors: spatial design for social-ecological resilience in Bucharest and beyond

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                          (TU Delft), Paola Viganò (EPFL, IUAV), Sybrand  
                          Tjallingii (TU Delft), Angelica Stan (UAUIM Bucha-  
                          rest), Arjan van Timmeren (TU Delft), Machiel van  
                          Dorst (TU Delft), Jorge Gil (Chalmers University of  
                          Technology)

Urban rivers have always been shaped by the tension between the pulsating power of seasonal water flows and the aspired fixedness of settlement form. As cities developed along rivers, ever since the earliest civilisations, a complex system of rationalisations has been constructed in order to adjust river systems to human needs and safety. Until not long ago, this system of rationalisations had been effectively keeping river dynamics under control, while cities had grown less aware of the above-stated tension. Yet, the combined effect of accelerated urbanisation and climate change have led to several failures in this control-driven approach to urban river engineering and planning. Recurring floods, environmental degradation, loss of biodiversity, decreasing liveability and environmental stress are symptoms that signal the loss of synergy between rivers and cities. These symptoms reveal four specific problems (Figure 2). As urban rivers were transformed into elements of technical in-

1. Detail of the Dâmbovită riverfront in Bucharest. Photo by: Claudiu Forgaci



infrastructure to facilitate longitudinal flows (storm water runoff, car traffic), they became *physical barriers* to people, ecosystems and water. Once rivers were transformed from their undisturbed natural state into systems mainly based on controlling drainage and restraining natural fluctuations, a *latent flood risk* has built up. In the effort to manage infrastructural flows, these same transformations *diminished the capacity of urban rivers to deliver ecosystem services* and *reduced their scalar complexity*.

Recognising these challenges, this PhD thesis focuses on Urban River Corridors (URCs) as spaces of social-ecological integration par excellence—that is, spaces where the interaction between the urban systems (carrying the ‘social-’) and the river system (carrying the ‘-ecological’) is (potentially) the most intense. The general hypothesis is that with an integrated spatial understanding, planning and design of rivers and the urban fabric surrounding them, cities could become more resilient, not just to flood-related disturbances, but to general chronic stresses as well. Drawing on theories of social-ecological resilience and urban form resilience, on conceptual and analytical tools from the fields of spatial morphology and landscape ecology, and on explorations through urban river design projects, the thesis departs from the research question

*“How can social-ecological integration be spatially defined, assessed and designed in Urban River Corridors?”*

Accordingly, it constructs a theory of social-ecologically integrated Urban River Corridors, in which it proposes a spatial-morphological definition, an assessment framework, and a set of design principles and design instruments. These three components of the theory represent the descriptive, analytical, and normative claims advanced in the research, respectively. The thesis employs a mixed methods research strategy that combines methods of both quantitative and qualitative nature as part of a transdisciplinary design study approach.



Problem 1: The river as a physical barrier. The River Tietê bordered by Avenida Marginal Tietê in São Paulo. Photo credit: Reginaldo Bianco.



Problem 2: Latent flood risk. The rising water of the Danube approaching the centre of Budapest on 8 June 2013. Photo credit: AP Photo/MTI, Sandor Ujvari.



Problem 3: Lack of ecosystem services. Channelized Los Angeles River. Photo credit: Downtowngal on Wikimedia.org.



Problem 4: Reduced scalar complexity. The River Dâmbovită, Bucharest, in the 18th c. (left) and today (right). Source: watercolor by Amadeo Preziosi, 1869 (left), fotografieaeriana.eu (right)

2. The four problems tackled in the thesis.



As the object of the design study, the case of Bucharest, crossed by URC Dâmbovită (Figure 1) and URC Colentina, is used to contextualise the spatial-morphological definition, and to demonstrate, develop and test the proposed assessment framework and design principles, with a distinct set of methods in each of the three parts of the thesis.

### Conceptual framework

Building on the descriptive, analytic and normative goals of social-ecological resilience and urban form resilience and equipped with the tools and techniques of spatial morphology and landscape ecology, *social-ecological integration* is proposed as



3. Conceptual framework diagram

a normative concept capable of operationalising social-ecological resilience. In general terms, social-ecological integration can be defined as *the capacity of social-ecological systems to sustain synergies and to alleviate conflicts between the patterns and processes of coexisting ecological and social components*. It builds on general properties of resilience, it addresses chronic stresses, and it adopts a proactive approach, by pooling the resources and adaptability of the social and ecological components of the system.

Applied to the urban environment, social-ecological integration is aimed at enhancing the composition and configuration of urban spaces that can potentially fulfil ecological and social goals in a combined way. The urban environment is seen as a social-ecological landscape in which all spaces can, potentially and to a certain degree, provide social-ecological integration. However, the unevenness of the urban landscape makes some spaces more suited than others. *Urban river corridors (URCs)*, chosen as areas of focus in this thesis, are spaces of social-ecological integration par excellence, where the interaction between the social systems of the city and ecological systems is (potentially) the most intense. URCs are defined as *spatial-morphological units com-*

*binning the geomorphological features of the river valley with the morphology of the urban fabric developed along the river* (Figure 7).

### Approach

Operationalising social-ecological resilience requires a proactive approach capable of addressing the complexity of the urban environment, the uncertainties of future events, and the limitations of disciplinary models. To meet these challenges, the thesis adopts a *transdisciplinary design study approach*.

A *design study* combines research and design as two reciprocal and complementary domains of activity. As such, it is characterised by a systematic involvement of design—a problem-driven activity aimed at changing existing situations into preferred ones—in the process of inquiry—a question-driven activity aimed at advancing generalizable knowledge.<sup>1</sup> This research used design in three ways: (1) as a starting point and (2) as a way of exploration, it was informed by river design projects carried out by the author prior to and during the research; (3) as a way of testing, a design workshop was used as an integral part of the research strategy. The research offers

<sup>1</sup> Linda N. Groat and David Wang. 2013. *Architectural Research Methods*, 2 edition. Amsterdam, Boston: Wiley.



a set of principles and instruments to guide and aid the design for social-ecological integration. Moreover, the subject matter of this thesis—social ecological integration of URCs—requires *transdisciplinarity*, that is, opening up to an ‘ecology of ideas’<sup>2</sup> scattered across different fields of knowledge—river ecology, hydrology, environmental history, river restoration, civil engineering, urban and landscape design, urban and regional planning, to name just a few of the ones which were encountered during the research.

## Research design and thesis outline

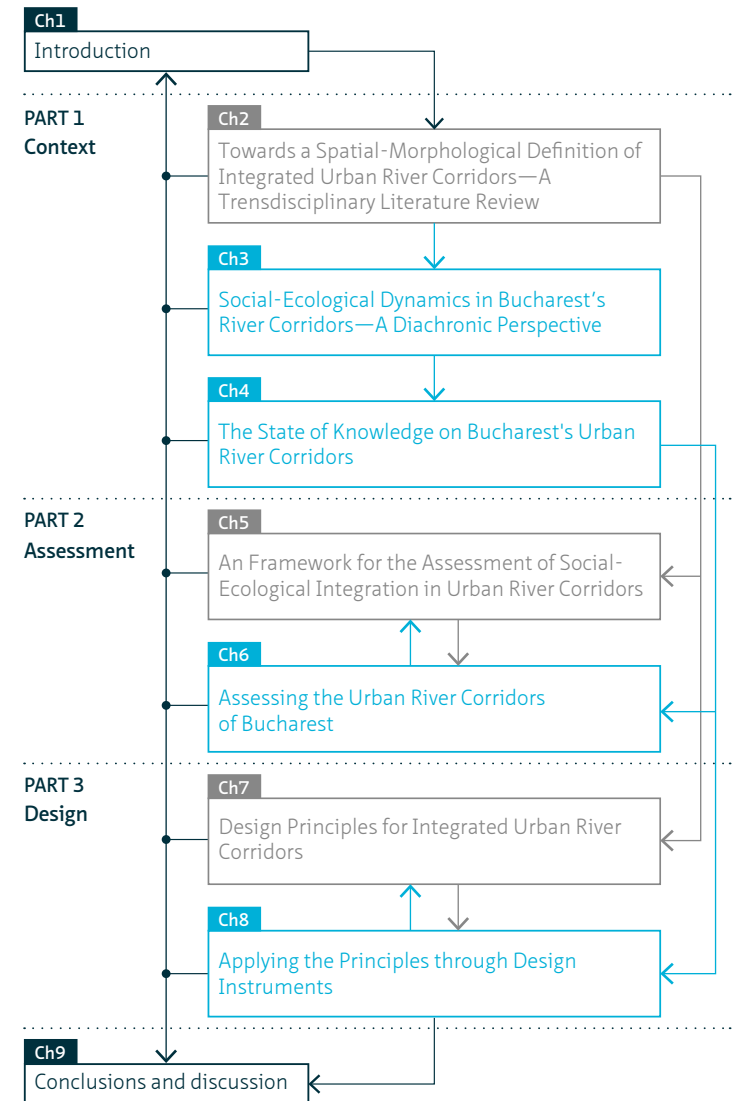
Determined by the transdisciplinary approach and the nature of the research question, the thesis adopts *a mixed methods research design*, as it combines elements of a case study design and logical argumentation under the overall approach of a design study. This research design is particularly suitable, considering the complexity of the context and topic of enquiry, the exploratory nature of design, the variety and changing nature of data sources, and, consequently, the need for triangulation.

This strategy of inquiry is rooted in a pragmatic worldview, as “it is not committed to any one system of philosophy and reality.”<sup>3</sup> Instead, it is problem-centred, it is concerned with applications situated in a plural reality and it is free in combining different methods, techniques and procedures of both qualitative and quantitative nature. The investigation involves the intensive study of a single “typical” case,<sup>4</sup> which is “representative of the phenomenon under study”—

<sup>2</sup> Montuori, Alfonso. 2013. "The Complexity of Transdisciplinary Literature Reviews," *Complicity: An International Journal of Complexity and Education* 10, no. 1/2 (August 2): 45–55.

<sup>3</sup> W. Creswell, John. 2014. *Research Design (International Student Edition): Qualitative, Quantitative, and Mixed Methods Approaches*, 4th edition. Thousand Oaks, California: SAGE Publications, Inc.: 11.

<sup>4</sup> Gerring, John. 2007. *Case Study Research*. Cambridge: Cambridge University Press: 49.



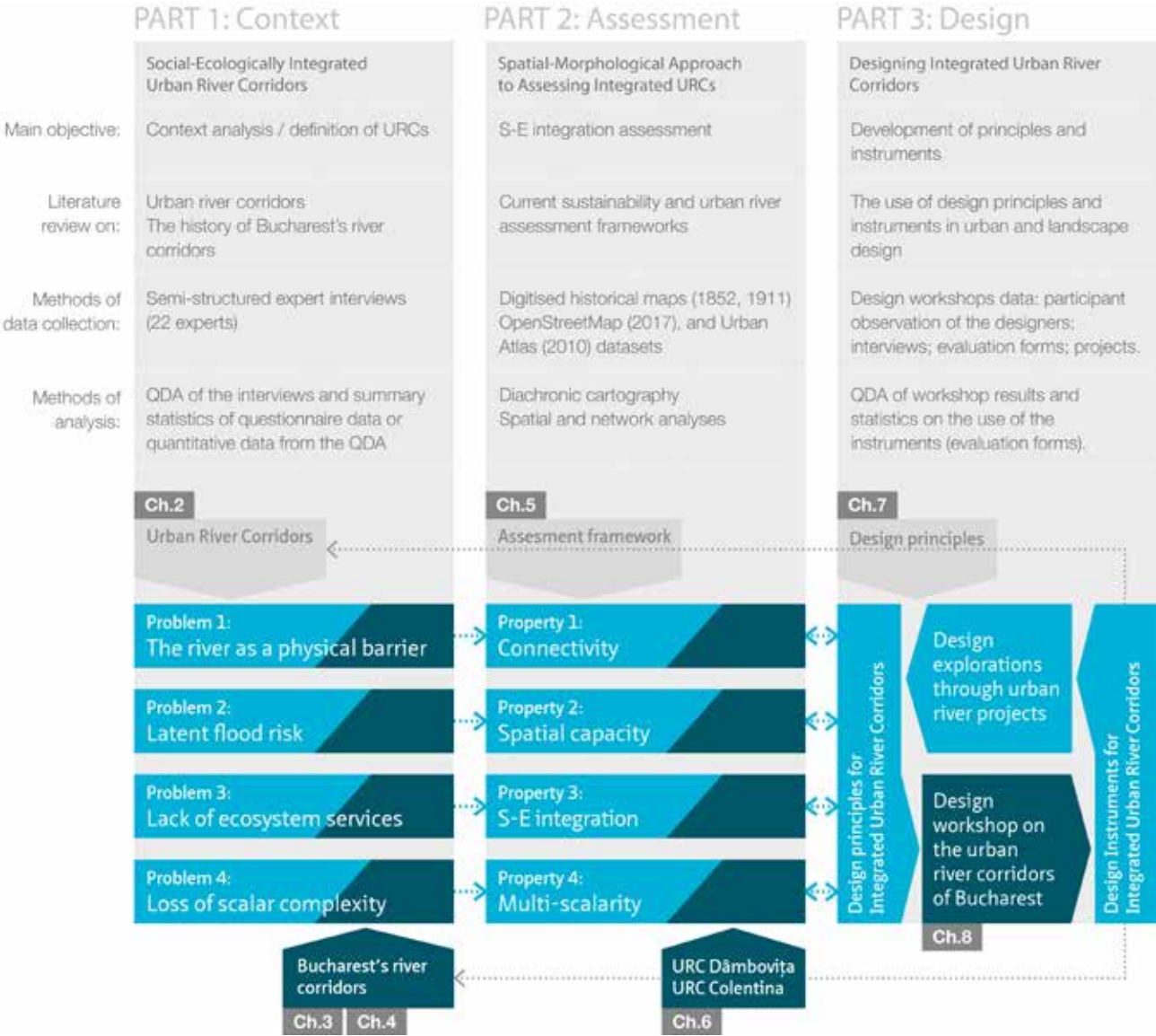
4. Thesis outline (theoretical chapters in grey, application chapters in blue).

the city of Bucharest and its two rivers. According to Yin's typology,<sup>5</sup> the present study may be classified as theory-building, as it is instrumental in exploring and to explaining the phenomenon at hand. It is exploratory in its search for principles and explanatory in its aim for generalisable knowledge.

As shown in Figures 4 and 5, the thesis is divided in three themed parts: Context, Assessment and Design. This structure resembles the main stages of an evidence-based design process and makes the transition through descriptive, analytical and normative claims as the thesis advances.

<sup>5</sup> K. Yin, Robert. 2003. *Case Study Research. Design and Methods*, 3rd ed. Thousand Oaks, California: SAGE Publications, Inc.

5. Research design diagram.



## Social-Ecological Integration: properties and spatial definition (Chapter 2)

As a result of a transdisciplinary literature review exploring environmental-ecological, social-economic, planning-governance and spatial-morphological dimensions of urban rivers, four key properties of URCs were identified: *connectivity*, *open space amenity*, *integration*, and *multiscalarity*. Connectivity was described as an integrative concept in ecology, hydrology and urban space design.<sup>6</sup> Open space amenity was put forward as a key element in successful waterfront development<sup>7</sup> as well as in green (and blue) infrastructure planning.<sup>8</sup> Integration was described in terms of possible models and principles of combining the networks and spaces of URCs.<sup>9</sup> Multiscalarity was based on a synthesis of scalar frameworks used in descriptions of urban rivers in literature.<sup>10</sup>

Accordingly, the *spatial-morphological definition of URCs* (Figure 7) put forward in the thesis entails integrated knowledge of three-dimensional

<sup>6</sup> G. Mathias Kondolf and Pedro J. Pinto. 2017. "The Social Connectivity of Urban Rivers." *Geomorphology* 277: 182–96; May, Rachel. 2006. "'Connectivity' in Urban Rivers: Conflict and Convergence between Ecology and Design." *Technology in Society* 28, no. 4: 477–88.

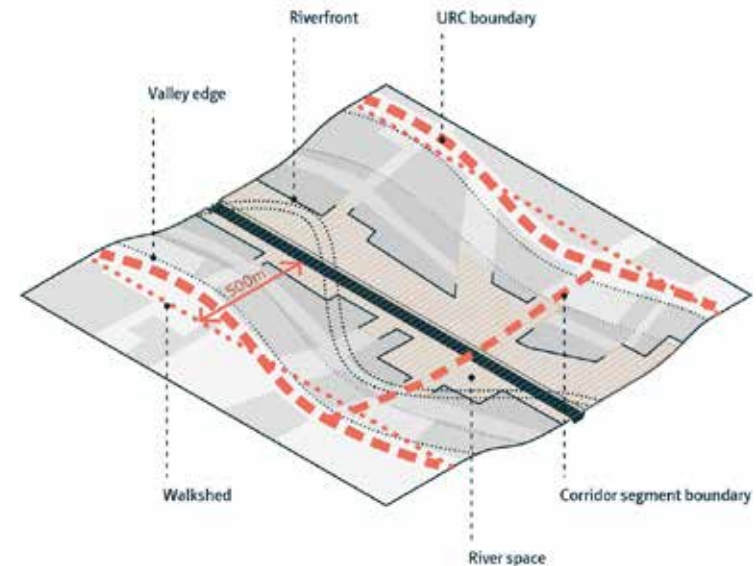
<sup>7</sup> L. A. Gordon, David. 2009. "Planning, Design and Managing Redevelopment Change in Urban Waterfront." *The Town Planning Review* 67, no. 3: 261–290; Stevens, Quentin. 2009. "Artificial Waterfronts," *URBAN DESIGN International* 14, no. 1: 3–21.

<sup>8</sup> Ahern, Jack. 2007. "Green Infrastructure for Cities: The Spatial Dimension." In *Cities of the Future: Towards Integrated Sustainable Water and Landscape Management*, ed. by Vladimir Novotny and Paul Brown, 267–283. London: IWA Publishing; A. Benedict, Mark, and Edward T. McMahon. 2006. *Green Infrastructure: Linking Landscapes and Communities*. Washington, DC: Island Press; Perini, Katia and Paola Sabbion. 2017. *Urban Sustainability and River Restoration: Green and Blue Infrastructure*. John Wiley & Sons, Ltd.

<sup>9</sup> D Manning, Owen. 1997. "Design Imperatives for River Landscapes." *Landscape Research* 22, no. 1: 67–94; P. Tjallingii, Sybrand. 2005. "Carrying Structures for the Urban Ecosystem." In *Shifting Sense. Looking Back to the Future in Spatial Planning*, ed. by E. Hulsbergen et al., 355–368. Amsterdam: Techne Press; P. Tjallingii, Sybrand. 2015. "Planning with Water and Traffic Networks. Carrying Structures of the Urban Landscape." *Research in Urbanism Series* 3, no. 1 (April): 57–80.

<sup>10</sup> J. Vietz, Geoff, et al.. 2016. "Thinking Outside the Channel: Challenges and Opportunities for Protection and Restoration of Stream Morphology in Urbanizing Catchments." *Landscape and Urban Planning* 145: 34–44.

connectivity, open space amenity in the river space, and consideration of a scalar spectrum specific to URCs. Three-dimensional connectivity describes connections on longitudinal, lateral, and vertical dimensions. Open space amenity represents the provision of open spaces (public or private, green or paved), in balance with built density, to ensure environmental and public space quality. The spectrum of scales specific to URCs comprises the catchment scale (bounding the river system), the metropolitan scale (overall urban structure and landscape), the URC, corridor segment and river space scales and the site scale. Moreover, a social-ecologically integrated spatial definition needs to consider the river valley and the spatial configuration of the urban fabric jointly. Accordingly, the delineation of the URC, that is, its outer boundary, the corridor segments and the river space, is defined as shown in Figure 6.



6. Proposed method of the delineation of the URC, its segments and the river space.



# I Metropolitan area

- 1 Major metropolitan network
- 2 Metropolitan area
- 3 Roll

## II, segment scale, connectivity

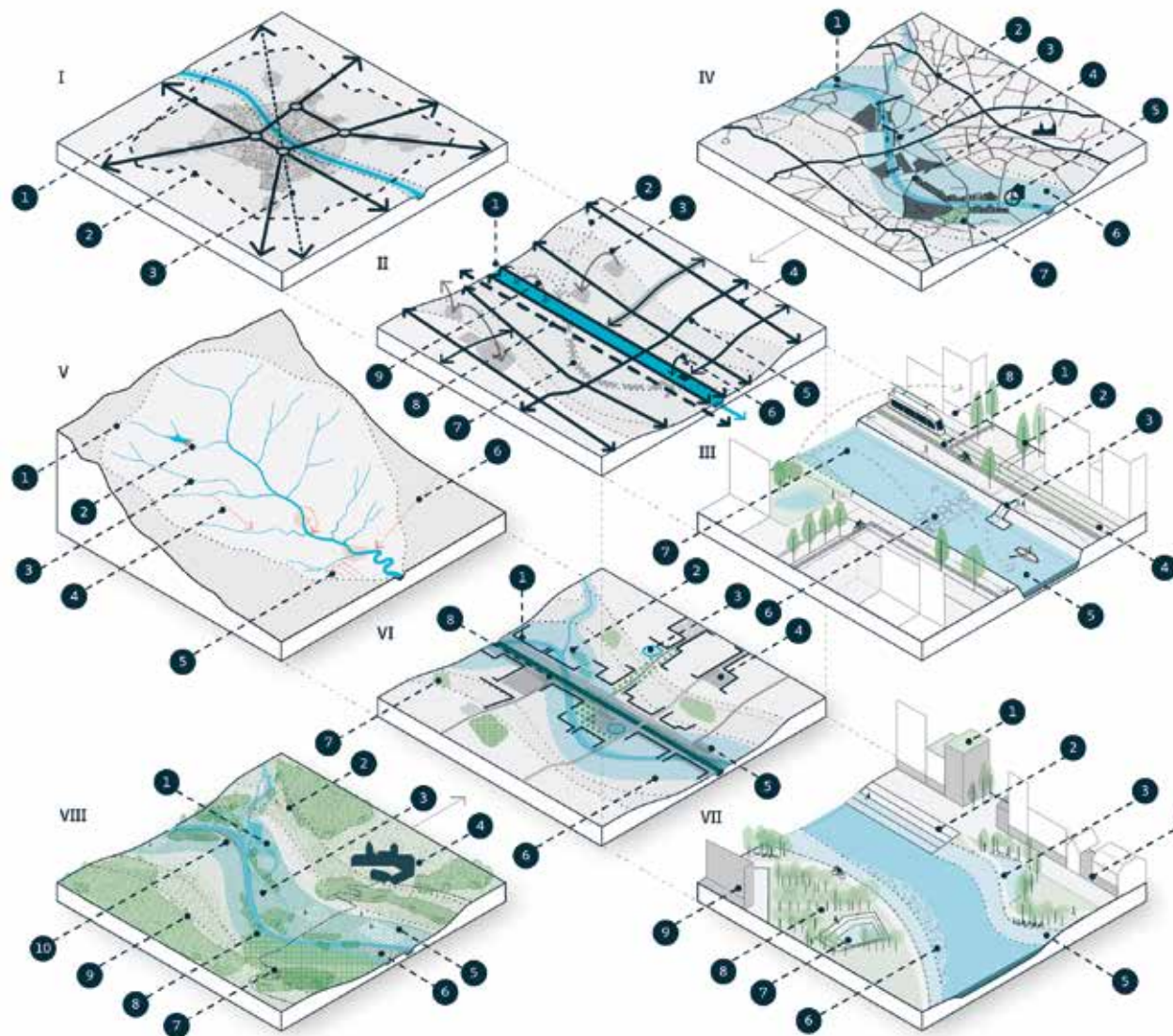
- 1 River in the landscape
- 2 Natural drainage lines
- 3 Ecological connections in the river corridor
- 4 Local street roads along the river edge
- 5 Transverse road connections
- 6 Local street connectivity in the river space
- 7 Bypass, river system restoration
- 8 Public transport lines in the river space
- 9 Local street connectivity in the river space

## III Catchment area

- 1 Watershed
- 2 Dam
- 3 Irrigation
- 4 Bypass channel
- 5 Irrigation system
- 6 Inter-basin transfer system

## IV Natural river dynamics

- 1 Old river bed
- 2 River in the landscape
- 3 River in the landscape
- 4 Settlement outside the valley
- 5 Agriculture in the landscape
- 6 Settlement areas (the river)
- 7 Local road network outside the valley
- 8 River in the landscape
- 9 Vegetation in the valley edge (the river)



# IV Urban fabric before river restoration

- 1 River path
- 2 Valley route
- 3 Old river bed
- 4 Urban river fabric in the landscape
- 5 Water mills in the river space
- 6 Floodplain
- 7 Semi-public and private gardens and landscapes in the river space

## III River space connectivity

- 1 Local street connectivity in the river space
- 2 Local street connectivity in the river space
- 3 Local street connectivity in the river space
- 4 Public transport lines in the river space
- 5 Local street connectivity in the river space
- 6 Local street connectivity in the river space
- 7 Local street connectivity in the river space
- 8 Local street connectivity in the river space
- 9 Local street connectivity in the river space

## V, URC, segment scale, open space

- 1 Watershed
- 2 Water storage system
- 3 Water storage system
- 4 Water storage system
- 5 Water storage system
- 6 Water storage system
- 7 Water storage system
- 8 Water storage system

## VII River space open space

- 1 Private or semi-public green space (green roof)
- 2 Private or semi-public green space (green roof)
- 3 Private or semi-public green space (green roof)
- 4 Private or semi-public green space (green roof)
- 5 Private or semi-public green space (green roof)
- 6 Private or semi-public green space (green roof)
- 7 Private or semi-public green space (green roof)
- 8 Private or semi-public green space (green roof)
- 9 Private or semi-public green space (green roof)

## 7. Illustration of the spatial-morphological definition of URCs.



8. The regional context of Bucharest crossed by the rivers Dâmbovița (bottom) and Colentina (top) in the 19<sup>th</sup> century. Source: Szathmári, 1864.

### The Urban River Corridors of Bucharest (Chapters 3 and 4)

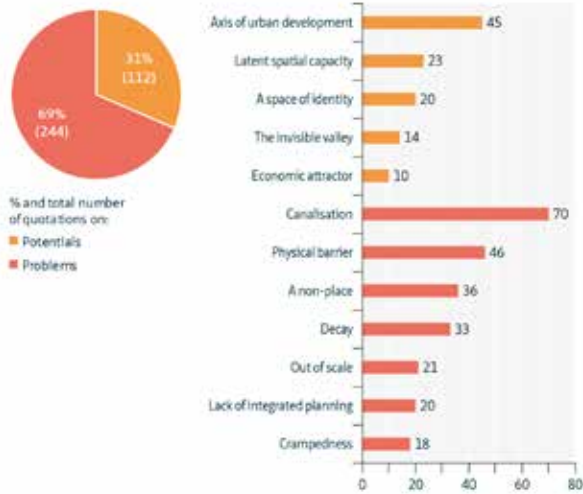
The social-ecological relationship between Bucharest and its two rivers, Dâmbovița and Colentina, went through a series of radical transformations. Both rivers were seen, in their natural state, as obstacles to urban development and, in their eventual engineered form, as major functional infrastructures aiding the modernisation of the city. Against the backdrop of the accelerated population growth and urban expansion started in the middle of the 19<sup>th</sup> century, taming the rivers was indeed an urgency: floods had to be stopped, disease had to be driven out, waste water had to be drained from the city efficiently.

Today, however, there is no apparent urgency, as it was for the early Bucharestians facing those threats. The 130-year transformation of the hydraulic system in the larger catchment has been managing water very efficiently. Bucharest is seemingly in control of its rivers. But is it really? Or should it be? Moreover, is it 'in control' that it should be? In the nearly three decades following the fall of Communism in 1989, in which the urgency of political, social and economic transformations prevailed over the need for spatial planning, the two rivers of Bucharest have not been actively transformed.

Instead, they were subject to a process of uncontrolled development, which has yet to be fully documented in urban planning and design literature. The recent transformations and the current state, including problems and potentials, of the two URCs of Bucharest, have been investigated through interviews of local experts involved in planning, design, governance, engineering or civic initiatives related to the two rivers.

The experts described Dâmbovița (Figure 10, top) as the most problematic of the two URCs (Figure 9), mainly because it is completely canalised and, as it is bordered by roads on both sides, it acts like a physical barrier to pedestrian movement. Due to its disconnection from the pedestrian network, it was named by the experts a 'non-place', a space that lacks meaning for the inhabitants of the city. In addition, any spatial intervention along Dâmbovița is considered to be very difficult due to the lack of integrated planning and the crampedness of the river space in central segments of the corridor. At the same time, given its central location, Dâmbovița could become an axis of urban development, with a strong spatial identity and economic attractiveness. Dâmbovița could also benefit from the reactivation of the river valley and the abandoned urban areas and structures in its vicinity.





9. Summary of problems (red) and potentials (orange) of River Dâmbovită, based on the qualitative data analysis of the expert interviews conducted.

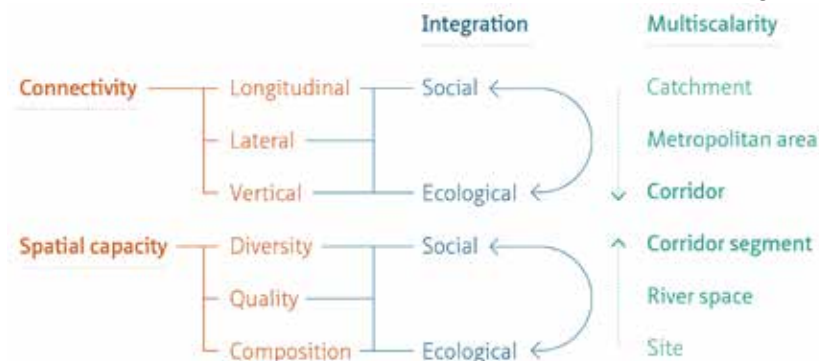
River Colentina (Figure 10, bottom) and its surroundings were described by the experts as a fragmented territory. This fragmentation is visible both in the poor accessibility of the river, mainly due to lakeside privatisation, and in the social imbalance between poor and rich lakeside communities. According to the interviewees, the recent degradation of the river can be ascribed mainly to the weak urban legislation and derogative planning practices of the post-communist period. The experts also pointed out the great potential of the river to become a green-blue corridor and that, like Dâmbovită, it could become an axis of urban development mainly driven by recreational activities capitalising on the prevailing natural qualities of the corridor.

10. Iconic perspective along the central segment of the River Dâmbovită (top). Artificial edge and low water on one of the lakes of the River Colentina (2). Photo credits: Alexandru Mexi, Claudiu Forgaci.



## Spatial Assessment of Social-Ecological Integration (Chapters 5 and 6)

In the second part of the thesis, an *assessment framework of social-ecological integration in URCs* was constructed following the spatial-morphological definition of URCs and building on a review of current approaches to the spatial assessment of urban rivers. The indicator system that was developed for the assessment framework consists of social and ecological indicators organised under the categories longitudinal, lateral and vertical connectivity, as well as spatial diversity, spatial quality, and spatial composition (Figure 11).

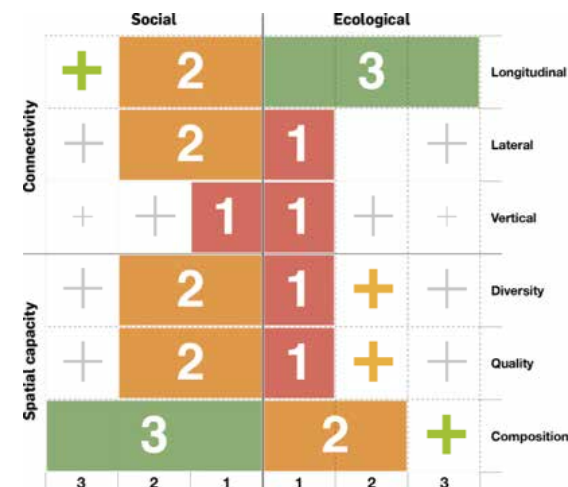


11. Diagram of the assessment framework built on the four properties of URCs: connectivity, spatial capacity, and their subdivisions as the categories used to structure the indicator system (in orange), social and ecological categories confronted under integration (in blue), and the spectrum of scales focused on the corridor and corridor segment under the property of multiscalarity (in green).

Target values were defined for each indicator and were classified on a standardised three-point scale. This way, the assessment of social-ecological integration could be carried out, as shown in Figure 12, by confronting social and ecological indicators under their corresponding categories (e.g. longitudinal social connectivity with longitudinal ecological connectivity). Multiscalarity could be ensured by aggregating data from scales of constraint (river catchment and metropolitan area) and from scales of components (river

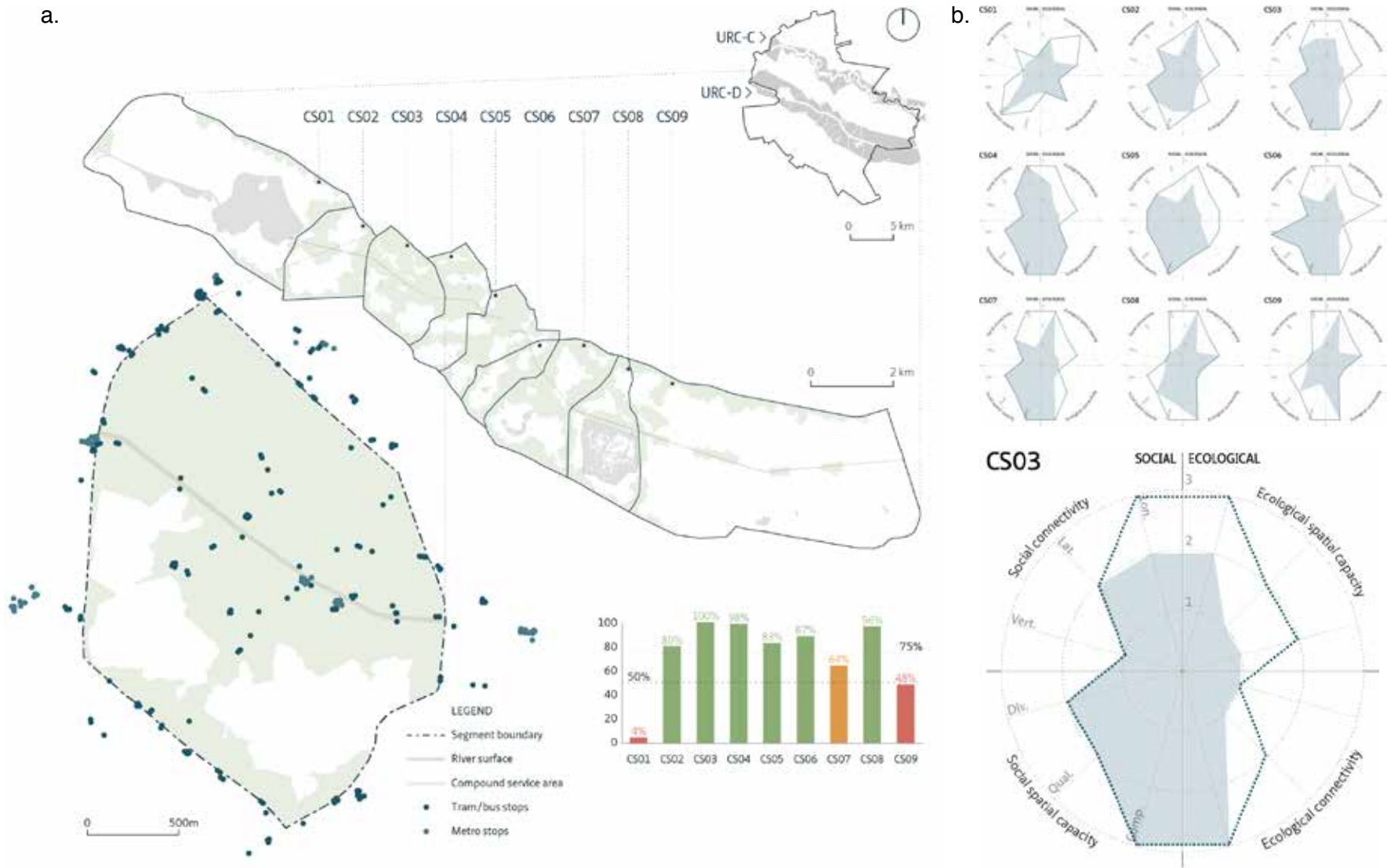
space and the scale of individual sites) to the scale of the URC and the URC segment defined as the scales of focus for assessment. After the measurements are made on the scale of a corridor segment, the results are aggregated to the scale of the URC, where the final assessment and interpretation of the results are made.

The main problems and potentials derived from the expert interviews



12. The assessment of social-ecological integration for segment CS03. Potentials for integration are marked with a coloured '+' or a grey '+', representing potentials above the minimum desirable goal. A coloured '+' represents a potential increase in social-ecological integration

taken in Bucharest were used as criteria to select the indicators relevant for the assessment of social-ecological integration in the URCs of Bucharest. For each corridor segment as well as the corridor as a whole the assessment was carried for URC Dambovită as shown in Figure 13, leading to conclusions that can inform design and planning decisions targeting areas with high potentials of social-ecological integration.



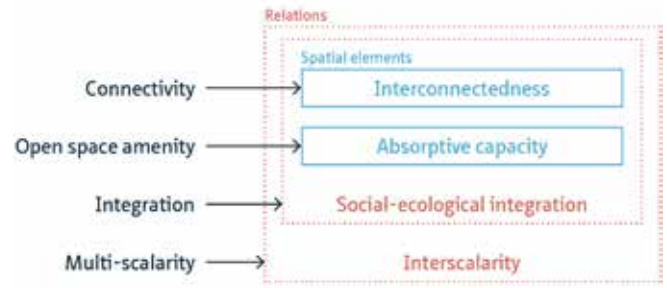
13. (a) Accessibility from public transport stops, as an example of a connectivity indicator applied on URC Dâmbovită and detailed on corridor segment CS03. (b) Comparison of the actual (grey fill) and potential (dotted outline) social-ecological integration of the nine corridor segments (top) and detailed CS03 (bottom) and the emerging typology of potential social-ecological integration.



### Design Principles for Integrated Urban River Corridors (Chapter 7)

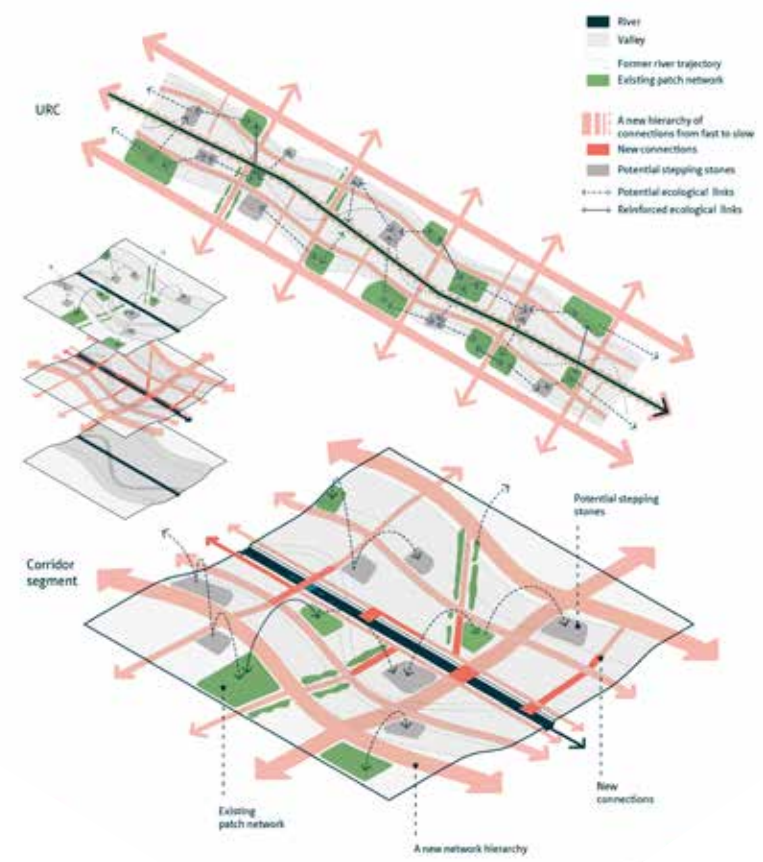
Distilled from practical experience and refined by theory, principles are essential for guiding thought or action and for facilitating the transfer of knowledge across disciplines. Urban design is a normative activity that often makes use of transdisciplinary principles to transfer knowledge of a given urban phenomenon to the design process. To that end, the thesis translated the four properties of URCs introduced, namely *connectivity*, *open space amenity*, *integration*, and *multiscalarity*, into corresponding design principles: *Interconnectedness*, *Absorptive Capacity*, *Social-Ecological Integration*, and *Interscalarity*.

As shown in Figure 14, the first two principles were used to define the elements of URCs—networks and spaces—as well as their configuration and composition. The latter two were defined as relational principles, as they guide design by revealing spatial linkages across the systems and scales of the URC. Design for social-ecologically integrated URCs requires an overall understanding of the potentials uncovered by each of these principles. Advanced as a comprehensive set, the four principles were defined as follows:



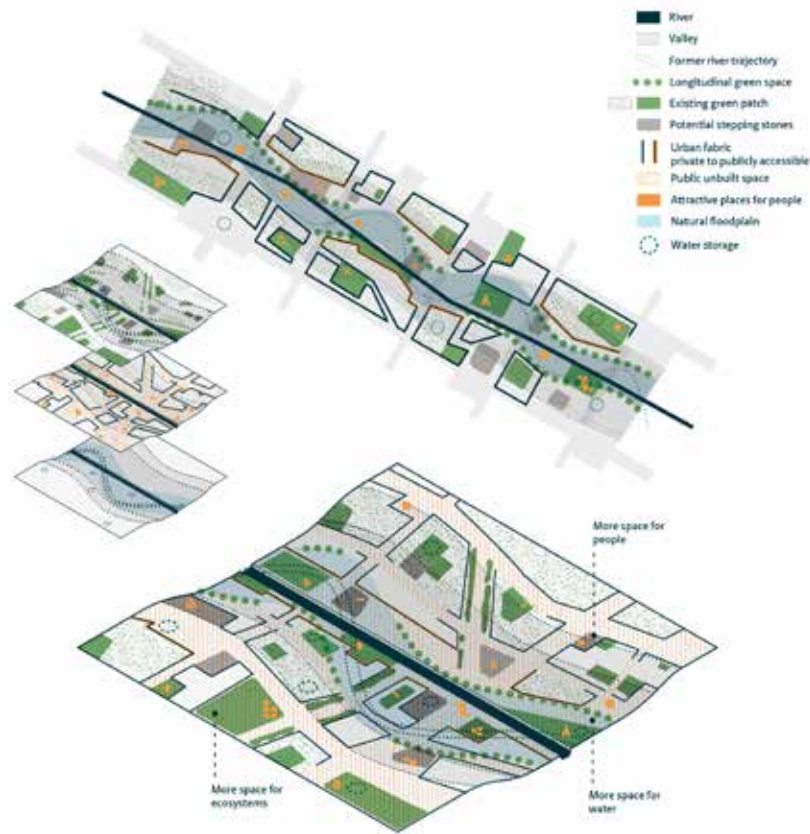
14. The four design principles proposed in the thesis (right), as derived from the four key properties of URCs (left). Interconnectedness and Absorptive Capacity refer to the spatial elements of URCs, while Social-Ecological Integration and Interscalarity describe the spatial-temporal and systemic relations between those elements.

15. Diagram of the *Interconnectedness* principle on the scales of a generic URC (top) and corridor segment (bottom).



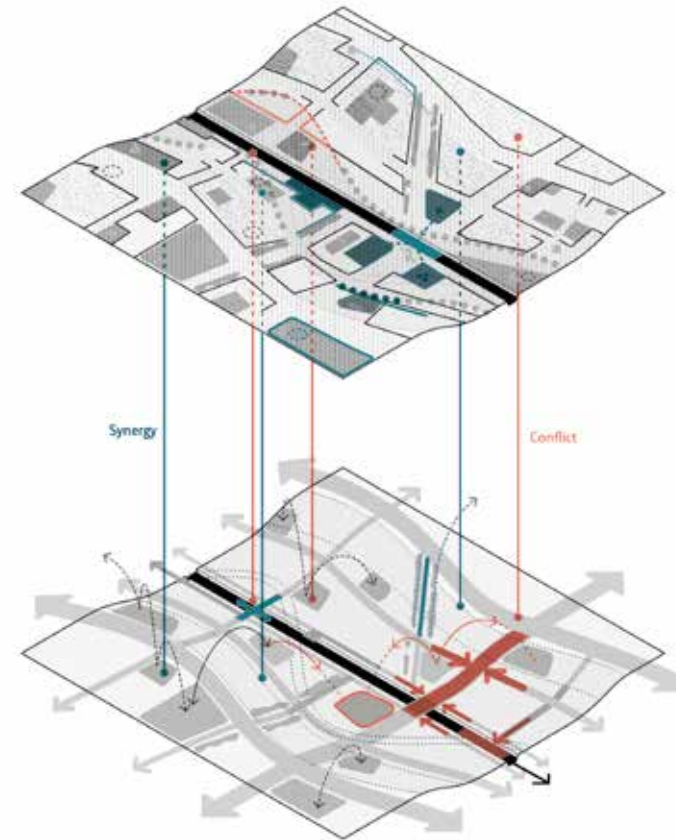
*Interconnectedness* guides the design of the spatial elements of the water network, the traffic network, and the ecological network in the URC. According to this principle, these networks should have a non-conflicting and interconnected spatial configuration in order to accommodate hydrological, social and ecological connectivity on all three—i.e. longitudinal, lateral and vertical—dimensions.

17. Diagram of the *Absorptive Capacity* principle on the scale of a generic URC (top) and corridor segment (bottom).

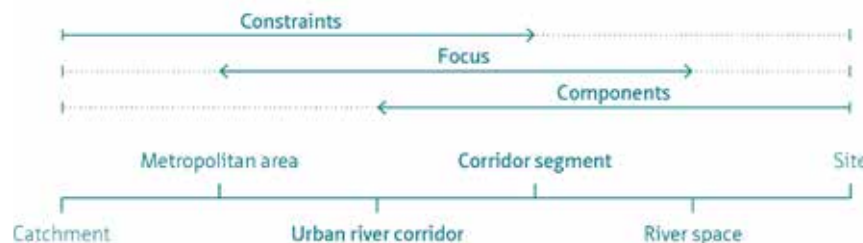


*Absorptive Capacity* is a design principle that addresses the elements of water space, social space and green space in the URC. According to this principle, the spaces of the URCs must have a redundant and attractive spatial composition, which is obtained, on one hand, from increased spatial capacity and, on the other hand, through functional and spatial diversity.

16. *Social-ecological integration*: synergies (in green) and conflicts (in red) among and across spatial elements and elements of connectivity.



*Social-Ecological Integration* is a relational principle according to which (potential) conflicts and (potential) synergies within and between the networks and the open spaces of the URC reveal strategic spaces for social-ecological integration. Synergies are reflected in non-conflicting spatial network configurations and in multifunctional open spatial compositions.



18. The scalar framework of URCs consists of: (1) the catchment for the river system and the metropolitan area for the urban system; (2) the urban river corridor and the corridor segment; (3) the river space and the site representing typical scales of detail.

*Interscalarity* makes relations across the scalar spectrum of URCs explicit. This principle establishes a framework which divides the scalar spectrum of URCs into levels of constraint (or context), levels of focus and levels of components (or detail). By making these relations explicit, interdependencies and cascading effects are accounted for in the design process. In addition, *Interscalarity* reveals temporal constraints and path dependencies inherent in the networks and spaces of the URC.

### Applying the Principles through Design Instruments (Chapter 8)

In line with the four design principles, the thesis elaborated four design instruments, namely the Connector, the Sponge, the Integrator and the Scaler, and tested them on the two URCs of Bucharest. The design workshop as a research methodology was used to test, refine and demonstrate the performance of the design instruments (Figures 19-21).

*The Connector* implements the principle of *Interconnectedness* with a procedure that helps the designer highlight and reconfigure the network elements of the URC and reassign them in a non-conflicting spatial configuration. The Connector is not comprehensive but strategic, as it selects network elements that are key to improving interconnectedness.

*The Sponge*, applying the principle of *Absorptive Capacity*, aids the designer in making an inventory of all open spaces of the URC, classifying them into (existing and potential) elements of water space, public space, and green space, and critically identifying their qualities and attractiveness.

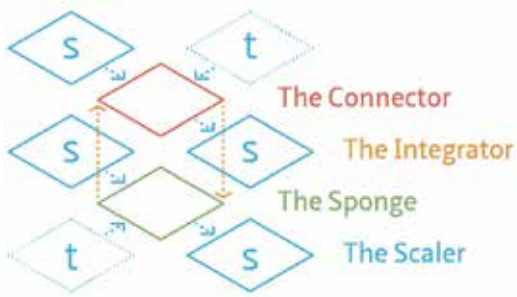
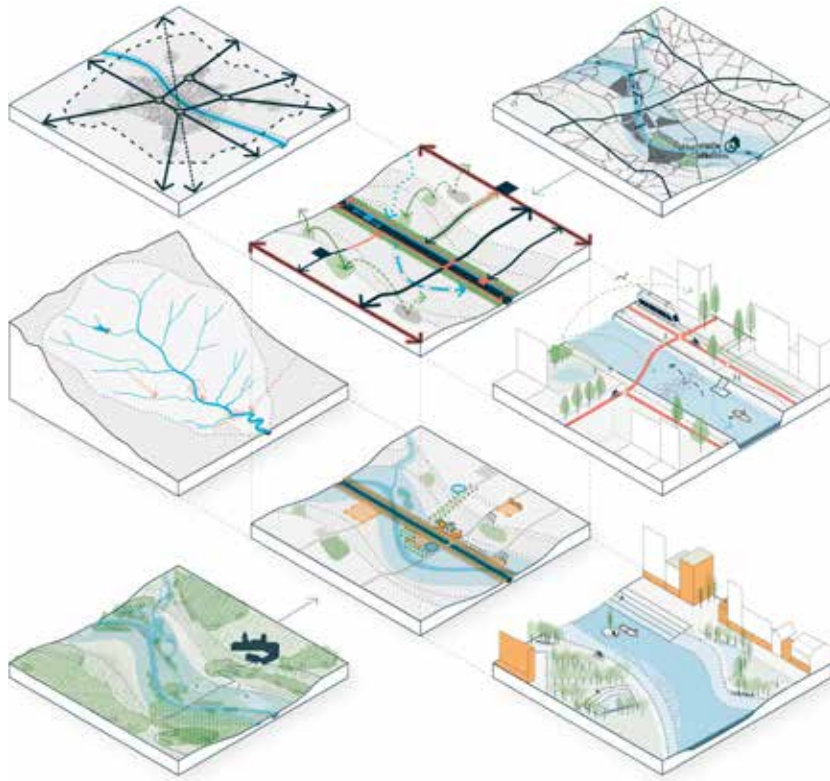
*The Integrator*, implementing the principle of *Social-Ecological Integration*, helps the designers identify social-ecological conflicts and synergies on two levels. On the one hand, it examines the interaction between network elements and open space elements separately. On the other hand, it confronts the networks and open spaces to reveal further synergies between their spatial configuration and spatial composition.

*The Scaler* applies the principle of *Interscalarity* by revealing scalar interactions among the spatial elements identified by the Connector and the Sponge. As a reflexive instrument, the Scaler helps the designer identify the scales of context, focus and detail on the scalar spectrum of URCs and, in consequence, to make (potential) interdependencies, cascading effects and path-dependencies explicit.

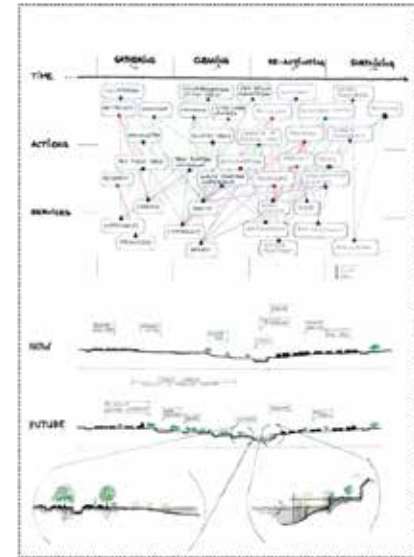
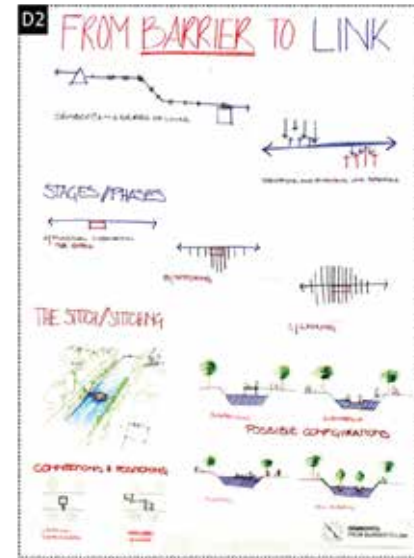
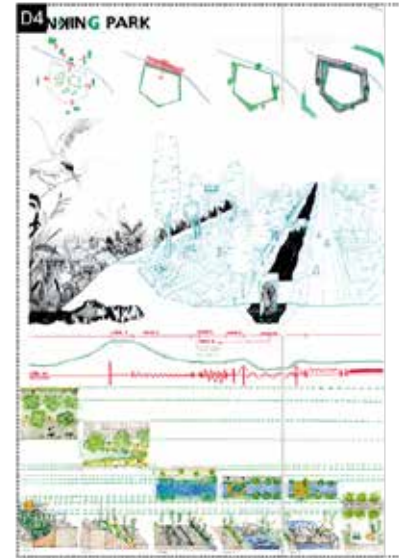


19. Workshop participants applying the instruments on URC Colentina.





20. The four design instruments.



21. Examples of design projects from the design workshop in Bucharest.

## Conclusions

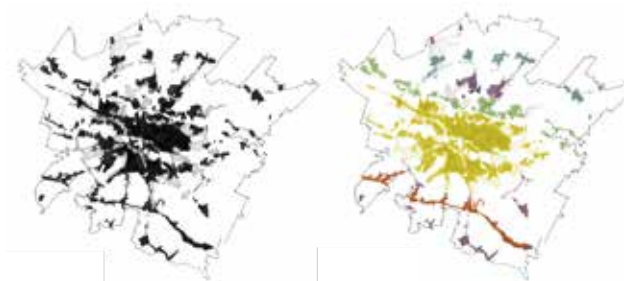
In response to the main research question, the thesis has constructed a theory of social-ecologically integrated Urban River Corridors, in which it proposed a *spatial-morphological definition*, an *assessment framework*, and a set of *design principles and instruments*.

The proposed *spatial-morphological definition* advances a description of URCs in which the spatial requirements of urban systems (the 'social-') and ecosystems (the '-ecological') are considered on an equal footing. The four key properties put forward in the definition establish the spatial prerequisites upon which social-ecological integration can be achieved. The close analysis of the URCs of Bucharest has contextualised this definition and demonstrated the importance of the four properties in relation to real-world problems and potentials.

In order to assess how well the spatial-morphological definition is reflected in a given empirical context, the *assessment framework* has elaborated quantifiable targets for connectivity and spatial capacity of both social and ecological kind. With this assessment framework, planning and design decisions can be better informed about the current and potential social-ecological state of URCs. The assessment conducted on the URC Dâmbovită of Bucharest demonstrated how the framework can offer strategic and actionable insights for planning and design for social-ecological integration.

Rooted in the spatial-morphological definition of URCs, design explorations and complementing the assessment framework, the *design principles* proposed in this thesis guide the spatial transformation of URCs towards social-ecological integration. Devised as user-friendly implements of the design principles, the *design instruments* help designers of and in URCs to identify strategic elements and relations of social-ecological integration.

Beyond these findings, the thesis recognises that the design and planning of URCs towards social-ecological integration might



22. The urbanization of Bucharest can be interpreted in two ways: as radial-concentric pattern structured by the traffic network (left) or as a stacked linear pattern structured by rivers (right). Source: Forgaci, 2013. Drawing traced on Urban Atlas data.

have wider implications to the spatial development of a city as a whole (Figure 22).

Moreover, none of the observations derived from the assessment or from the design explorations and testing carried out in this thesis are uniquely applicable to Bucharest. A few other cities with similar problems or exemplary actions have been named throughout the thesis (e.g. Paris, Munich, Rotterdam, Antwerp, Seoul, Madrid), but there are many more around the world, which have recognised the need to reconnect with their rivers. It is assumed that the wider applicability of the research outcomes, developed on the URCs of Bucharest, is possible. Future research pursuing such a possibility is nevertheless needed.

All in all, this thesis is exploratory in combining research and design, as it goes beyond analysing design or illustrating research through design to involve design both as a way to develop concepts and patterns in the design process and as a grounded evidence-base rooted in transdisciplinary knowledge. In the light of the methodological and epistemological challenges encountered with such an approach, research in the field of urbanism needs to further develop design-driver research methodologies that are problem based and unrestricted by disciplinary boundaries. Hence, different forms of combining the two discourses, informed by transdisciplinary knowledge, should be further explored. This is an imperative for a truly evidence-based design practice and sustainability-driven scholarship in urbanism.

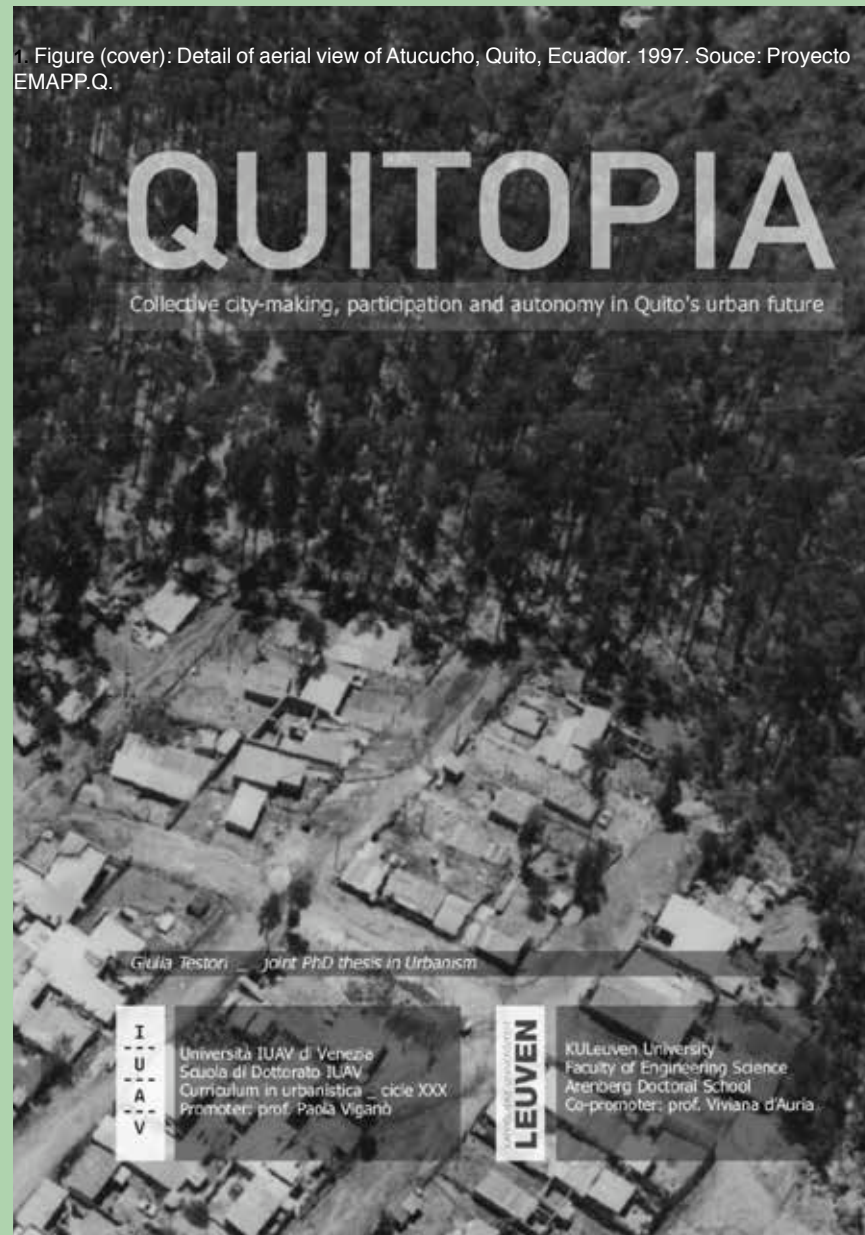


# mention

## Quitopia. Collective city-making, participation and autonomy in Quito's urban future

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The aim of this PhD thesis is to challenge the way in which cities are planned towards a more inclusive approach. The key topics discussed are the collective production of urban spaces, participation and autonomy. These concepts are analyzed by taking Ecuador as a case study. The recent Buen Vivir Constitution and National Plan of Ecuador (2008), in association with the many self-construction realities in the capital Quito, highlight a dense panorama in which the right to the city acts as a common denominator between institutional framework and collective action. The thesis shows how these two worlds, although having common purposes, hesitate to meet. In response to this gap between theory and practice, I pose the following research question: considering the opportunities and challenges presented by Buen Vivir on participation and autonomy, in what way can collective city-making reduce Quito's inequalities? And - above all - what role can urbanism play in such a setting? In support of the thesis, a critical analysis of the Ecuadorian normative related to autonomy, participation and collective city-making is proposed and supported by a theoretical retrospective on such topics in the Global



1. Figure (cover): Detail of aerial view of Atucucho, Quito, Ecuador. 1997. Source: Proyecto EMAPP.Q.



South. From a practical point of view, a parallel focus on cultural practices of participation and self-management of the territory is given, highlighting their role as founders of the development of most Latin American countries. In this regard, an ancient - yet still exercised - Andean practice is brought to light, the *minga*. After studying the evolution and co-optations of *minga* over the centuries, attention is focused on its different impacts in space and time, particularly deepening into three urban suburbs of Quito: Santa Clara, Atucucho and Comité del Pueblo. The evolution of the distinctive spaces and the impacts of collective city-making are represented through a three-dimensional, made-to-order line of time, namely the *Crono-Topo Line*. These drawings depict how *mingas*, actors, events and decision-making processes affected the transformation of the neighborhoods' collective spaces.

Finally, *Quitopia* – as the thesis's title – imagines a scenario in which the recent Ecuadorian constitution and the cultural substratum linked to the *minga*, are the basis of a utopia in which the metropolitan collective spaces of the capital are entirely remodeled and co-managed. In the thesis, The interpretation of the regulatory background and the study of local culture related to the creation of collective spaces take steps from the

specific Ecuadorian case but - ultimately and most importantly - are seen as a powerful combination that could revolutionize urbanism as it is known today. Thus, opening a path for the experimentation of future alternatives for inclusive urban contexts.

The reader won't find in this thesis a complete interpretation of Quito's spatial history, neither a masterplan for its spatial future; rather an experiment to recalibrate the priorities of urbanism. Moreover, while the thesis concerns an Ecuadorian condition, analysis tools are also applicable for other contexts where alternatives are needed to prioritize the making of more inclusive cities. In this sense, the interpretation of the complex and often contradictory cultural anatomy of the city is crucial.

The originality of this thesis consists in four main aspects: 1) It looks through the urban lens at an original constitution that mixes modern values, such as equality and freedom, with the communitarian principles of reciprocity and solidarity. 2) It presents the most rich and complex ever-produced study on *minga* in academic literature. Besides reconstructing the Andean practice's evolution over time verbally, it also detailly represents *mingas*' impacts on collective spaces. 3) It proposes a scenario in which the experimentation is not based only on urban



2. Figure: *Minga* in Peru promoted by the president Fernando Belaúnde Terry. 1967. Source: [www.robinsonlibrary.com](http://www.robinsonlibrary.com)

design but also integrates cultural and normative principles. 4) It discusses urbanism from a multidisciplinary perspective, mixing political science, anthropology, sociology and history, to finally show - in a written as well as graphical form - how policies, actors and events all are interrelated influences in the shaping of space.

## Chapter 1

### The *Buen Vivir* and the institutional framework

This first chapter looks at the Ecuadorian concept of *Buen Vivir* from different perspectives. The first section describes the socio-political dynamics that enabled the 2008 Ecuadorian Constitution's formation, also casting light on some of the cardinal principles that sustain its creation. Treated concepts include: the notions of plurinational state and cosmo-vision; the wish to imagine a future beyond capitalism; the importance of exercising reciprocity and solidarity, the relevance of reflecting on local scale and cultural identity of a place and finally, a reflection on the utopian veil that embraces *Buen Vivir*. The second part of the chapter focuses on the presence in the Constitutions of topics such as the city, participation and autonomy. The third part finally, proposes a reading of these three topics through a critical literature review.

The last Ecuadorian Constitution is the outcome of a complex process of social mobilization which demanded a new set of policies that would finally include and represent the many minorities of the population. It was approved by 64% of the population with a referendum held on September 28, 2008. Between the most significant eventually recognized principles there are: the acknowledgment of Ecuador as an intercultural and plurinational state, '*Buen Vivir*' or '*Sumak Kawsay*' as a model of the development regime, water as a human right, food sovereignty, nature as a right, indigenous justice and collective rights (KIVLAK/GIZ 2011). The main objective as a nation, defined in the preamble of the Ecuadorian Constitution, stated: "a new form of public coexistence, in diversity and in harmony with nature, to achieve the *Buen Vivir*, the *Sumak Kawsay*". For Gudynas, *Buen Vivir* is a pluralistic concept informed both by indigenous traditions and strong criticism to neoliberal theories of Western development (2011). François Houtart instead looked at it as an authentic shift in the paradigm in relation to capitalism (Houtart 2014). Many authors have defined this new constitution as 'alternative', even though it preserves the principles of modern liberal democracies created during the European Enlightenment; it mixes modern

values such as equality and freedom with the communitarian values of reciprocity, complementarity, harmony, and solidarity of *Buen Vivir* (Giraldo 2014). Both Walsh and Gudynas noticed that this has been the first time in Latin America, where a nation established its political project through historically excluded, oppressed, subordinated and discriminated philosophies (Walsh 2010, Gudynas *et al.* 2011). Ecuador, by declaring its plurinationality, accepts cosmo-visions and philosophies from heterogeneous cultures, with the idea to build a political discourse that respects and recognizes multiculturalism that does not repeat the homogenization of the modern project

Concepts of reciprocity and solidarity are woven throughout many articles of the constitution (see art. 27,32, 34,...). Reciprocity can be described as the 'something that is exchanged', and in the broad Latin American panorama, means collective work. As will be further illustrated in the second chapter, such collective acts of work can be either called *mingas*, *covites*, *tequios* or *faenas* depending on the context. Solidarity instead can be described as the development of a social conscience based on the conviction that social problems can be solved by the strength of unity and by the struggle around a common cause (Farah

2011). Solidarity, for the Italian lawyer Stefano Rodotà, is a principle that focusing on social rights can regenerate a cooperative attitude that seems to have altogether disappeared; a movement that keeps the horizon open beyond the miseries of the present times (Rodotà 2014). In other geographical contexts, but on the same concepts, translating them to the territory, authors like Alberto Magnaghi underlined the need to reinforce local cultural identity and communality over individuality. Territory and its various biophysical and socio-cultural components, especially those of old origins, are indeed important values and a way to re-territorialize a place under post-capitalist terms (Magnaghi 2010). Moreover, considering and valuing ontology of places, although not free of conflicts, is a strategy common to most decolonial design thinkers.

Considering the complexity of these legacies that have carried into the Buen Vivir principles, it is important to acknowledge they are neither retrograde nor a silver bullet. Buen Vivir carries multiple revolutionary and forefront ideologies, yet lamentably it doesn't guarantee effective and long-term social, economic and urban restructuring (Delgado Ramos 2015). For Houtart, this Constitution inserts itself well in the long tradition of Latin American legal "perfection", precisely be-

cause like other precedents, it does not focus on the application of such principles (Houtart 2014). Contradictions and the transformative possibilities of Buen Vivir is one of the reasons why this thesis has been written.

In the Buen Vivir Constitution and National Plan there are articles dedicated to cities, although not many, can be enlightening. Article 31 of the 2008 Constitution states as follows:

*Persons have the right to fully enjoy the city and its public spaces, on the basis of principles of sustainability, social justice, respect for different urban cultures and a balance between the urban and rural sectors. Exercising the right to the city is based on the democratic management of the city, with respect to the social and environmental function of property and the city and with the full exercise of citizenship* (Asamblea Constituyente 2008, Art. 31).

It assembles many concepts; the right to public space, the exercise of economic, social and cultural rights in the city, the right to difference, and fundamentally participation in the democratic management of the city. Since collective city making is a fundamental cultural feature of the Ecuadorian territory, such an article gives the possibility to recognize the right to collectively construct the city as a way to modify its territory. Moreover, the right to 'respect for different urban cultures'



3. Figure: Site and Services Programme. Hacienda Conde Villa Señor et Valdiviezo, in Lima, Peru. 1963. Source: <https://laboratoireurbanismeinsurrectionnel.blogspot.com>

could open up the recognition of multiple Ecuadorian territorial cultures, including the ancestral collective land property, the culture of co-producing collective spaces thought the reciprocal practice called *minga*, or the self-care of the Amazonian forest practiced by autochthonous communities.



Although strongly supporting the declarative stand point of the right to the city, authors like Delgado and Barrera point out that the recognition of a social right and an obligation of the State, unfortunately neither guarantees a practical process of urban restructuring and nor a a long-term perspective for a socio-environmentally harmonious urban future (Delgado Ramos 2015).

Autonomy moreover is certainly a recurrent term in the 2008 Ecuadorian Constitution; depending on the articles it either refers to the subsidiarization of responsibilities at the local level, or to the self-management of communities on specific administrative aspects. From the literature review, when talking of Latin American autonomia, main reference is given to territorial struggles in search for independence and self-management. For Aturo Escobar, autonomous systems should promote alternative power through forms of organization, such as community assemblies and rotation of obligations. While for Kallipoliti autonomía is a radical form of urbanism, where civic federations can enable the development of infrastructural mechanisms (Kallipoliti 2015). The thesis, embracing all these concepts, identifies their potentials and critical features, as a starting point to envision a more inclusive Ecuadorian urban future.

## Chapter 2

### The *Minga* and the *Crono-topo* line

The following contribution elaborates on an issue touched upon in the previous chapter: participation processes for urban improvements must be culturally and context specific (Peattie 1990; Lombard 2013; Watson 2009; Connelly 2010). This issue indeed is crucial to attempt answering the doctoral thesis main research question: considering the opportunities and challenges presented by the Buen Vivir on participation and autonomy, in what way can collective city-making reduce Quito's inequalities and what role can urbanism/design play in this setting? Of the many cultural aspects that might affect creation of Ecuadorian space, the first section of this chapter investigates a practice called minga; an Andean collective form of self-management and self-construction at the base of most rural and urban Ecuadorian developments. The second section defines research methods used to study the minga: including interviews, archival research, on-site drawings, and the production of a method of representation called *Crono-topo* line.

### The minga

This investigation on the minga is probably the most comprehensive research existing on the topic. This practice until now has been investigated solely by social scientists and anthropologists and mostly only its rural applications. Mingas however, are at the bases of centuries of Andean urban creation. Minga is a communal work practice from the Andean Region. It specifically originates from the Quechua word minccacuni and literally means requesting help by promising something in return. In general terms a minga is usually 'called' to involve a group of people that works collectively on a particular task.

The relevance of this research lays also on the fact that minga is not a case alone, but is one of many systems of community work and reciprocity worldwide where people do not expect anything in return, apart from collective benefit. Rwanda for example relied on the customary umuganda, this was used to enrich and adapt development programs as part of post-war reconstruction efforts; still today 80% of the population engages in cleaning up public spaces. In Haiti there is the kombit, recently used for post-earthquake reconstruction. In Uzbekistan a voluntary public mutual aid known as khashar has been practiced for centuries



4. Source: author, 2018.

and consists in constructing public buildings, watering vineyards and harvesting. Communal work and mutual aid are not limited to the global South. In Spain for example, collective practices of self-help such as the *auzolan* can be found in the Basque Country, the *andechea* in the Asturian region, the *tornajeira* in Galician territories. In Finland the *talkoot* is an example of a unique form of social participation. *Hyyppä* specifies that its purpose is to tackle a common concern for the good of the group. It may involve building or repair work or assisting someone with a task that exceeds his or her own capacity” (*Hyyppä* 2010, 33). Finally, in Ireland the *meitheal* can consist in cleaning and planting a forest or a park.

The notion of cooperative work is hence not unique to Ecuador, however, it's important

to consider the particularities of how it plays out in a colonial and not colonial contexts.

Mingas' characteristics and habits have changed much throughout history, but the unifying point that connects its transformations from pre-colonial times can be found in its many re-interpretations and co-optations. According to Guevara mingas were practiced since the conformation of the *Ayllu*: the pre-Inca entity of territorial organization. It constituted a self-sufficient political, social, economic and religious unit that brought together several family groups related to one another. During the Inca conquest of Ecuador in the XV century, the notion of *minga* was employed for the realization of sacrifices to the King Sun: the used term was *Mit'a* and consisted of a mandatory service for all married men and employed as a labor tax to the Empire. During the Spanish colonial period, the indigenous labor force was also exploited, but to build roads, churches and extract silver to finance European wars. Moving forward in time, even after the independence in 1830, profit was taken from the indigenous people to work collectively in the haciendas (big private estates) in exchange for firewood, water and pasture. This lasted until the third Ecuadorian Agrarian Reform in 1973, when the haciendados transformed their lands



5. DMQ 2002 / [www.facebook.com/Comuna-de-Santa-Clara-de-San-Millán](https://www.facebook.com/Comuna-de-Santa-Clara-de-San-Millán) / [lahora.com.ec](https://lahora.com.ec) / [informal-quito.tumblr.com](https://informal-quito.tumblr.com)

into capitalist enterprises and the peasants finally had the right to freely dispose of their own labor time.

The 70's represented for Ecuador a real social and economic turning point; it was a period of big reforms, Victor Ibarra's dictatorship ended and oil started to be exploited nationally; bringing to Quito and Guayaquil extraordinary investments in infrastructure and industry (Testori 2016). The Ecuadorian rural population, proved by centuries of exploitations, saw in the economic boom their chance of redemption. This induced massive waves of migration from rural to urban areas. The thesis looks more closely exactly at this period of time: how minga practice transformed from rural to urban endeavours? Which were its organizational dynamics and which its spatial impacts?

### Investigation methods

I have employed many methodologies of investigation to reconstruct the transformation of some spaces shaped by mingas. I conducted three fieldwork in Quito for a total of 6 months. The on-site expeditions helped me most in understanding the historic precedents that affected the case studies. I documented my fieldwork through photographs, audio recordings and sketches. The most precious moments were when the inhabit-

ants told me their stories about how their neighborhood was created, and even more revealing was when they showed me their private photo-albums. Having the possibility to be welcomed in many often-dangerous contexts was largely thanks to the help of the neighborhood's leaders. The 'word of mouth' allowed me at the time to interview more than 60 actors.

Having collected many kinds of sources, my investigation identifies the demand for new methods of representation that properly acknowledge the complex processes at play within shared space formation. The objective is to highlight its innovative features beyond the pure material outcomes of the built environment. The questions at this point have been: in which way could it be possible to exemplify the collective shaping of space through time? How to expand the perceptive limits of spatial representation commonly used in the urban disciplines? Is there a way to visualize past, present, and future characteristics at the same time?

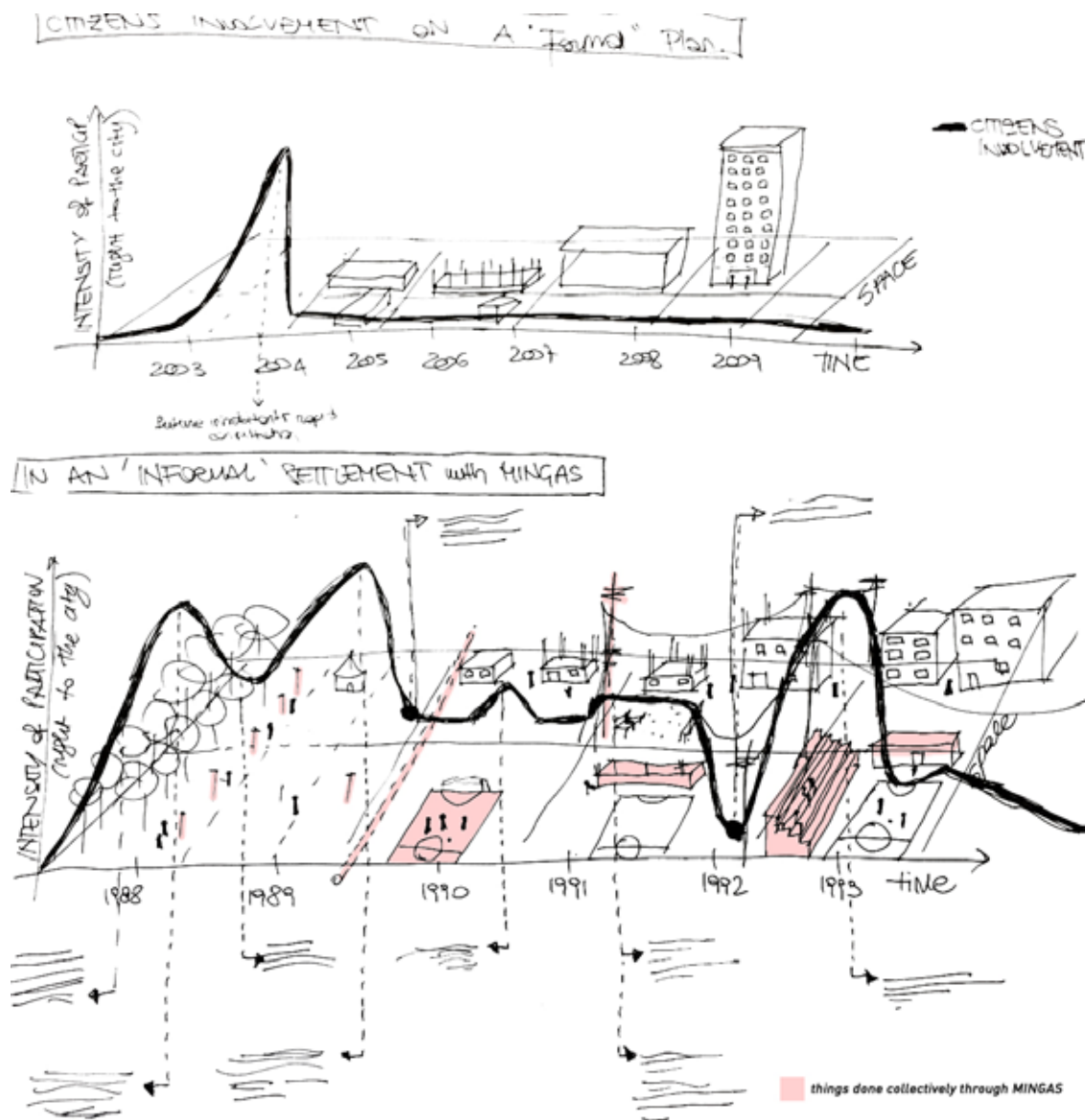
My aspiration was to merge time, actors, events, policies, participation and space; for this reason I invented the Crono-topo line. This visualization brings together the results of observing, describing and imagining relationships between local environment and local inhabitants; a way of combining the rich-

ness of the space's inherent contents. The crono-topo line evolves a common timeline, by including both CRONO and TOPO = SPACE and TIME. The Cartesian plane represents on the X-axis time, while space takes shape through an axonometric drawing along the Z-axis. The Y-axis expresses what here is called 'participation intensity'.

Below the X-axis are ordered by time, the neighborhood events that may have influenced the formation of collective space, such as the date of the first invasion, when the first school was built, when the first electricity was installed, when the neighborhood's leader received external funding for the realization of a kindergarten, etc. Above the X-axis are listed instead a selection of events at the national scale that may also have affected the collective space formation also at the local scale, for example, the date of a specific policy affecting land legalization, an earthquake, an agricultural reform, etc.

The physical space of the analyzed site then, is represented through an axonometric drawing. In the three case studies that I will present in the next chapter I made a crono-topo line for each neighborhood. The drawn space does not represent the site in its entirety over time, but the axonometry consists of a summarization of that specific





6. Source: author, 2018.

site's characteristic evolution. This simplification was chosen because most materials that I gathered to understand the site in the past are just blurry aerial views and detailed pictures. The colored details of the drawing identify products of collective efforts, in this case, the product of mingas.

Finally, on the Y-axis I visualize what I call the 'intensity of participation'. Divided into low, medium and high, this axis, together with the events on top and bottom of the time-line, allows the formation of a sine curve with low and high peaks that correspond to how much space has been collectively developed by its inhabitants across time. I think this approach contributes to what Richard White said: "Visualization and spatial history... is a means of doing research; it generates questions that might otherwise go unasked, it reveals historical relations that might otherwise go unnoticed, and it undermines, or substantiates, stories upon which we build our own versions of the past" (White 2010, 36).

The crono-topo line hence reveals details that, if only described by words, or separated in many drawings, wouldn't probably be so rich, clear and context-based. Finally, in the case of this research, the Crono-topo line, apart from combining past events, also serves as a palimpsest to reason on possible strategies for the future.

## Chapter 3

### Quito and the three case studies

The neighborhood of Atucucho, located in the northwest of the capital, is a product of a land invasion at the end of the '80s. The Comuna de Santa Clara de San Millán is a historical communal land neighboring the city centre. Comité del Pueblo, located on the northeast of the metropolis, was built in 1971 from a cooperative effort between the Marxist Leninist party of Ecuador, low income workers and the Faculty of Architecture of the Universidad Central del Ecuador. Each of the three cases is analyzed following a consistent structure. I begin with the settlement origins; identify the complex net of actors that allowed its spatial/social development, detail historical events that influence the formation of collective space, and offer a highlight of the contemporary situation. As will be illustrated, the minga practice and neighborhood management are not always praised, but I believe that by identifying their contradictions, mistakes and good practices, will help envision a more inclusive and culturally-integrated urban future for Quito.

In Quito the oil boom created a dispersed growth of irregular occupation towards the slopes of the volcano Pichincha and the Itchimbia hill. In the maps at figure 10, I illustrate Quito's auto-constructed neighborhoods, overlapping them with other cartographies, such as risk areas for landslides; income by neighborhood, and ravines together with water streams. These maps reveal that the auto-constructed neighborhoods are invariably located in the most dangerous areas, mostly surrounded by ravines and rivers, and they almost entirely constitute the poorest areas of the city. Newcomers to Quito faced many difficulties including payment for their plots to illegal land sellers (lotizadores), building of their own house, provision and access to basic services and infrastructure, and exposure to severe environmental risks. Characteristic of most self-built Ecuadorian cases, these inhabitants faced these challenges through cooperatives, assemblies and mingas.

#### Atucucho and the fight for land

Atucucho is one settlement created by land invasion. It is located in the northwest of Quito, between 3,100 and 3,300 meters above the sea level. Currently it has around 17,000 inhabitants and it is divided into six sectors. The history of the neighborhood originates in 1988, when on the 1st of April, a group of 200

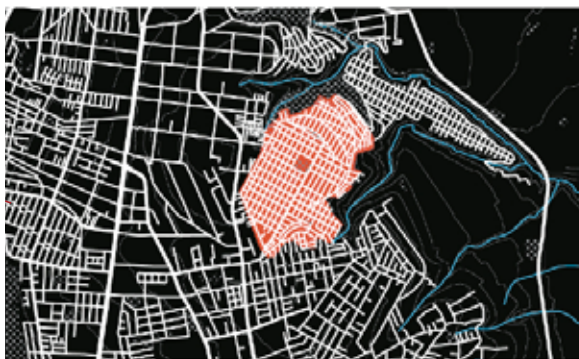
families occupied a land that was property of the Ecuadorian Ministry of Health. As can be seen in the Crono-topo line and the zoom, the land initially consisted of dense eucalyptus forest, which between the 1st and 5th of April 1988 was considerably reduced due to the tireless work of the first occupiers (Alvarado et al. 2011). On the outset, the situation was extremely precarious. As soon as some available space was created, inhabitants started building their shelters with what they could, from the deforestation of the eucalyptus, gaining the initial name Ciudad de los palitos (City of sticks). Countless practices were developed collectively through mingas, such as tracing plots, creating roads and sewer systems, etc. "With pick and shovel, we were creating the main road, it was very difficult for heavy machinery to pass through there, selfless work and sacrifice were required from all", an inhabitant recalls (MDMQ 2002, 17). With time, zinc started appearing and within some years, concrete blocks were found as a common building material throughout the neighborhood. Addressing almost all developing needs independently, inhabitants were essentially left alone by governmental and local institutions.

Also collective buildings were outcomes of collective work, and women, often pregnant, were the real constructors and fulcrum of the





Comité del Pueblo



Atucucho



Comuna de Santa Clara de San Millán



7. Source: private archive of Carlos Arias.



8. Source: author, 2016.

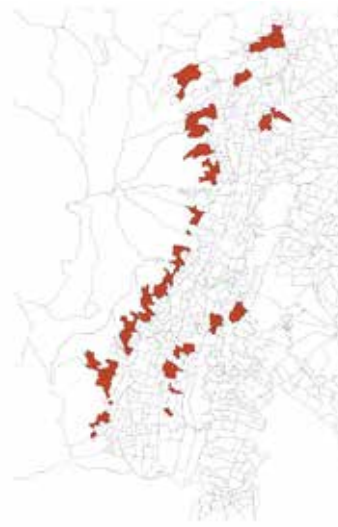


9. Source: author, 2017.



communal life development (Carrión 1992). Through networks of solidarity, Atacucho's territory was shaped by collective actions. It was a long process to satisfy human needs that not only manifested physically and social innovation also channeled social empowerment (Van Dyck and Van den Broeck 2013). Crucial it is to point out that apart from being practices of sharing and teamwork, mingas were outcomes of great physical efforts that were mostly mandatory.

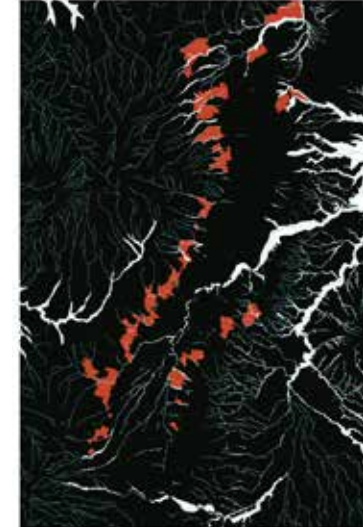
In Atacucho, and throughout many Ecuadorian indigenous communities or communes, the neighborhood organization is a complex machine of dialogue and interconnection between different sector leaders, block representatives and citizens. The place in which the decision-making process allows the self-management of the community is the assembly. Even though committees and associations rise and perish depending on civic needs, the superstructure of the neighborhood assembly still exists in most Ecuadorian neighborhoods. Generally, assemblies are open to all citizens, and the decisions are either taken by hand raising or by secret vote. Due to this capillary structure, this system of direct democracy has the potential to deeply involve the entire population on different issues, like the security of the neighborhood, management of its collective spaces, and



**Autoconstructed neighborhoods**  
source: own elaboration from Felipe Correa (2014) + GIS from OpenStreet map

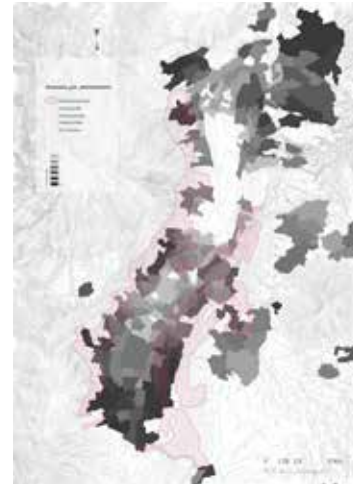


**Autoconstructed neighborhoods + Risk areas (land slides)**  
(ibid)

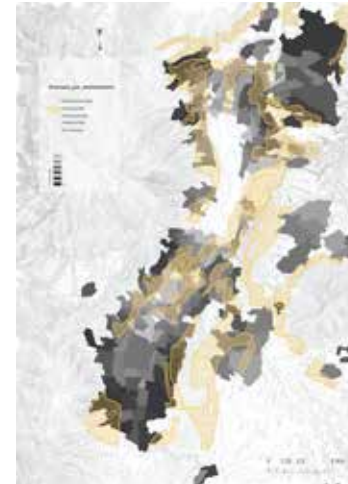


**Autoconstructed neighborhoods + Ravines and Rivers**  
(ibid)

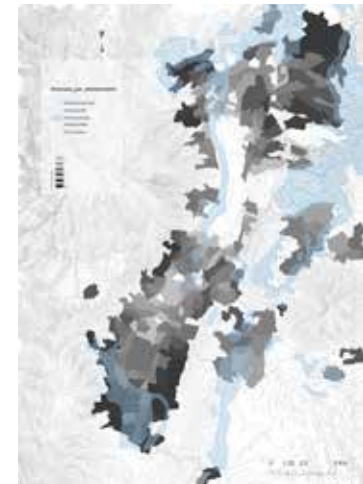
**POVERTY RATE AND VERY HIGH RISK OF LAND-SLIDE**



**POVERTY RATE AND HIGH RISK OF LAND-SLIDE**



**POVERTY RATE AND MEDIUM RISK OF LAND-SLIDE**



10. Source: author, 2019.

the organization of socio-cultural activities. The thesis describes the various steps of Atucucho's evolution over time, pointing out how local and national events had a strong impact on the intensity of participation and collective reproduction of the city.

The three case studies presented in the thesis show stories of self-construction, fights, autonomy, corruption, direct-democracy: complex dimensions of one face of Quito that shouldn't remain neglected. Without romanticizing or praising, the Crono-topo lines of the three cases show how self-constructed and self-managed neighborhoods are promoters of a complex net of interrelations between stakeholders. Not only the ingenuity, but also the capacity of attracting people and funding are vital aspects for the survival of the whole community.

Despite the many emancipatory potentials of these settlements, the research findings confirm also other relevant aspects. Being autonomous from the State, by decision or by force, for example requires enormous personal and collective efforts, time, and resources to provide missing services that in other cases the State shares equally between all citizens. Moreover, under an economic system that requires people to devote most of their time to a job, in the cases of Atucucho, Santa Clara de San Millán and Comité del Pueblo, finding

this resource to meet community needs was almost a nightmare for some people (Fassin 1992). Concerning an issue of territorial scale, in all three cases, despite the existence of the neighborhood assemblies, not all events can be controlled locally: actions at the national and global extent may trigger effects on the small scale. Exemplary is the list of national events present on the top of each Crono-topo line; particularly impacting for all cases has been, for example, the 2001 dollarization and its influence in the dropping out of collective works. Furthermore, when observing the spatial configuration of the settlements, I noted living conditions that could be uncomfortable and potentially unsafe for inhabitants, including exaggerated densities, extreme narrow streets, construction on slopes, and lack of public spaces. Through analysis, I reached the conclusion that one of the causes of these design mistakes is a lack of experts' support, including engineers to avoid risks, economists to foster internal economy, urbanists to design scales of services, infrastructure and collective spaces. Moreover, I found out that development can possibly be fueled by other channels than the market, proving that progress is not at all cost monetizable. In this sense, a multidimensional set of stakeholders including universities, NGOs and International Aid Organizations are crucial.

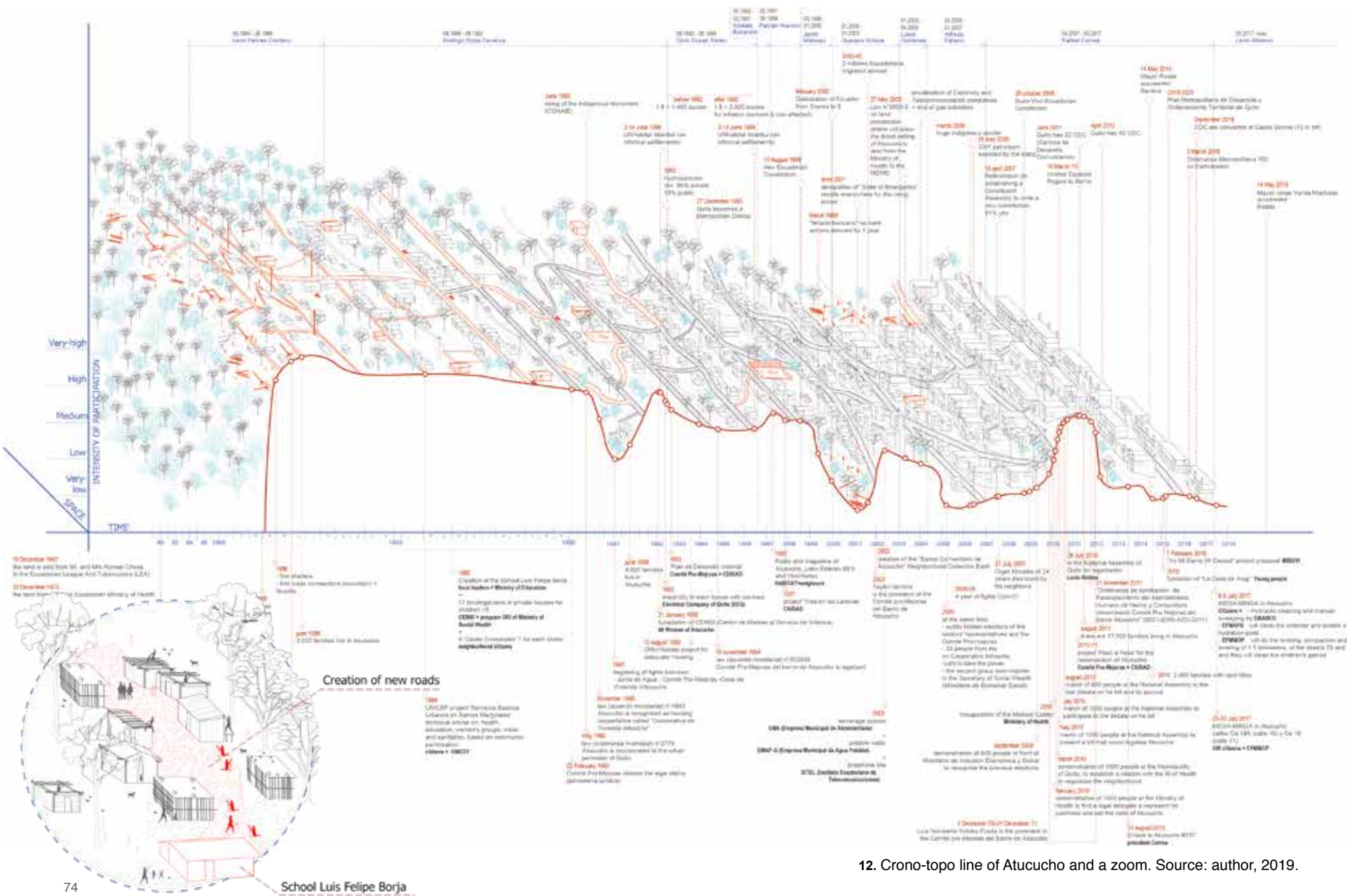
11. View of Lucha de los Pobres neighborhood, 1988. Source: *El Comercio*. 22 October 1988. Prof. Maria Belén Bastidas archive.



Finally, the studied cases reinforce Arturo Escobar's statement: "borderlands are the spaces par excellence where novel understandings and practices of design from ontological and autonomous perspectives might most effectively and radically take place" (Escobar 2017, 8).

In the three cases of Atucucho, Santa Clara de San Millán and Comité del Pueblo, internal decisions made through assemblies allowed each inhabitant to partake in direct democracy, making them responsible and engaged in their territory. Participation has characterized their entire history of community solidarity—with all exceptions—has been the keyword for their inhabitants. With all their contradictions, these communities show us alternative ways of embedded city making. They demonstrate how collective spaces can be co-created and collectively maintained.





12. Crono-topo line of Atucucho and a zoom. Source: author, 2019.

## Chapter 4

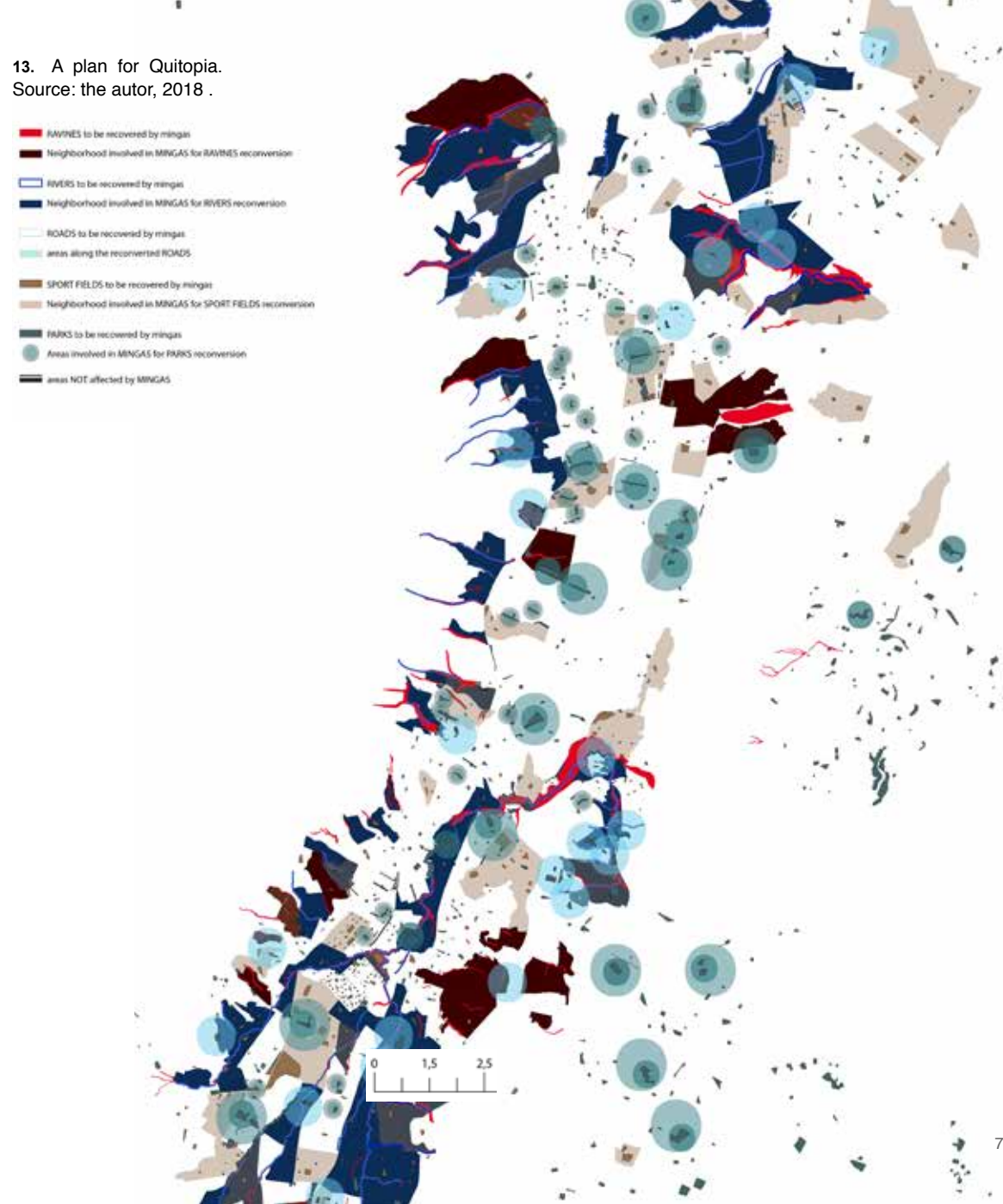
### Quitopia

This chapter is a proposition. I respond to the research question by envisioning a future for Quito, where the Buen Vivir Constitution is fully acquired and the minga practice regains a centrality in the collective spaces' creation and maintenance. Such an exercise of imagination heads out for utopic scenarios. The use of scenarios and utopias as tools to open paths for the future of cities is pondered, leading to a stakeholder diagram that envisions the administrative reconfiguration of how mingas in Quitopia could be practiced and supported. The result is an ideal scenario for the entire metropolitan scale, as well as a set of maps identifying potential collective spaces: such opportunities could in the future be co-managed and improved within the local communities.

Finally, using the Crono-topo line of Atucuchó as an exemplary palimpsest, the relation between Quitopia and the Buen Vivir institutional framework are described. This shows how, a complex set of actors (citizens, urbanists, anthropologists, and engineers), de facto co-design and produce the renewal of the neighborhood's collective spaces under the constant support of existing Ecuadorian laws.

### 13. A plan for Quitopia.

Source: the autor, 2018 .



The potentials of the Buen Vivir institutional framework and positive aspects of collective city-making have been demonstrated. However, the thesis has also pointed out critical aspects of both.

From one side, Quito municipality's attempts to involve citizens in decision-making processes haven't yet considered any culturally-based approaches. They have also leaned towards over-impose structures external to local representative settings, so failing to incorporate the history of collective city-making in actual territorial projects.

On the other side, the thesis points out the inner contradictions of the neighborhoods' self-organization. It is felt that a joint effort within institutions and citizens should be made. To face this challenge a leap towards a utopia is proposed, where the Buen Vivir principles are fully respected and collective spaces managed and maintained actively by local citizens together with the support of different stakeholders, among which the urbanists.

### Scenarios and utopias

According to Secchi, Viganò and Pellegrini, scenario construction is not a methodological refinement, but an epistemological reversal. Secchi wrote that the construction of scenarios makes the project of the city

and the territory an operation profoundly different from the past (Secchi 2002). In the words of Ash Amin, scenarios help to think of an alternative from the imposition of design proposals dumped from above, dropped without any regard for the knowledge, preferences and lifestyles of the people (Amin 2014). Moreover, for Neil Brenner the usefulness of building speculative visions and scenarios serves to fuel the debate on specific issues; to the American urban theorist scenarios should be socially oriented and ethically motivated (Brenner 2015). The thesis following these reflections uses scenarios, as Magnaghi would say, a heuristic tool to raise the bar on possible horizons of transformation (Magnaghi 2010, 154).

Why then use utopias? As an extreme effort of imagination, as said by Paola Viganò during her Honoris Causa Doctor ceremony at the Université Catholique de Louvain, utopias start from a critical point of view of the current reality and conceive a world that is better than the present. Spaces in this projection are ambiguous and in continuous oscillation. Moreover, as written by Giraldo in his book on the Buen Vivir, utopia has the pretension to break the established order and imagine a different one. It has the immeasurable duty of rewriting life, of helping us to question and rethink society. A utopia

14. Source: author, 2018.





helps us to avoid reality as something natural, unbreakable, unmodifiable and without alternative (Giraldo 2014).

Quitopia recognizes that not all places in the city can be administered through co-management. Private buildings and properties, highways and arterial roads, or public-private facilities: they all require solely the intervention of expert figures. The remaining sites, such as local roads, parks, local sport-fields, ravines, and rivers are seen as the ground for potential co-design, co-production and co-maintenance. Their future aspiration refers to existing scattered examples of Quito's recent past, where collective space as a square, a river-side or a field have been co-managed by organized citizens through assemblies and mingas. Quitopia is their imaginative forthcoming propagation in each corner of the metropolis. Depending on size, location and different radius of influence, each site in Quitopia is co-managed by its neighbouring users. Parks, rivers and ravines act as binding spines; early neighborhoods work collectively to face shared maintenance and concerns. Instead of hiring private companies, the municipality uses its resources to delegate the design, development and maintenance of collective spaces to the local communities supported by experts of

multiple disciplines. In Quitopia, communal minga practice re-orientes the mainstream client-based and for-profit design practices in the name of the Buen Vivir.

These two main faces of the city either managed by institutions or cooperatively can be, as Secchi would say, antagonistic images (Secchi 2002). The Italian urbanist, justifying the creation of scenarios, wrote that such representations are the only concretely practicable ground to construct coherent urban and territorial policies. These maps indeed, following his teachings, are images produced by interests by cultural backgrounds, and somehow reductive pre-suppositions that are partially incompatible with each other (Secchi 2002).

In the process of zooming-in Quitopia the Crono-topo line of Atucucho is revisited. By defining sets of existing collective spaces, I imagine what they could become if co-managed by Atucucho's citizens together with the experts. Each proposed vision is described through the lens of the actors involved, as well as the existing specific Ecuadorian legal framework that would potentially make this possible.

The purposed utopic scenario is "far from any primordialist call to go back" and does not "urge anyone to return to huts and dug-outs" (Tlostanova 2017, 9). Rather, it en-

wise ‘alternatives’ aspired by many decolonial and post-neoliberal authors, mostly from the social sciences (e.g. Esteva, Manzini, Stravides, Escobar, Harvey, Negri and Hardt, Deleuze and Guattari).

Under this lens, mingas are more than just an opportunity for reinforcing collective spatial reproduction. They provide a social institution with the potential to bring together the organizational, cultural, religious and political spheres of residents (De la Torre and Peralta 2004). The participation in the co-invention, co-production and co-management of city’s collective spaces strengthens dialogue, empowering and consolidating the community.

The conceived metropolitan plan supports the premise that local community members and experts are the decision-makers of their territory. Quitopia is finally the Buen Vivir manifested; a utopic city where shared responsibilities enforces respect, sustainability, and safety amongst all citizens.

The key role of the urbanist is now depicted, whether he/she equally acts as a listener and mediator, yet ultimately is the professional figure able to pull the strings of planning the city with an inter-scalar glance. Throughout this urban proposal, many questions remain open. How, for example, maintain the intensity of participation inside

neighborhoods? Or how to decide when local culture is really socially innovative and worthy to be reconsidered for the future?

The conclusion is an ambitious longing for Quito’s municipality. My thesis aspires to take more advantage of the many existing laws on participation and autonomy, shifting from a position of control to a role as a facilitator. Delocalization of responsibilities for the management of collective spaces can be enacted without losing a bold and complex metropolitan view.

This thesis finally serves as an invitation to touch subjects that often seem untouchable, something as sacred as a constitution. I believe that the practice of minga deserves deeper research on its effective use and impacts throughout the Andean Region, so leading to future comparative case studies of collective city-making as seen in Uzbekistan, Ruanda, and Finland.



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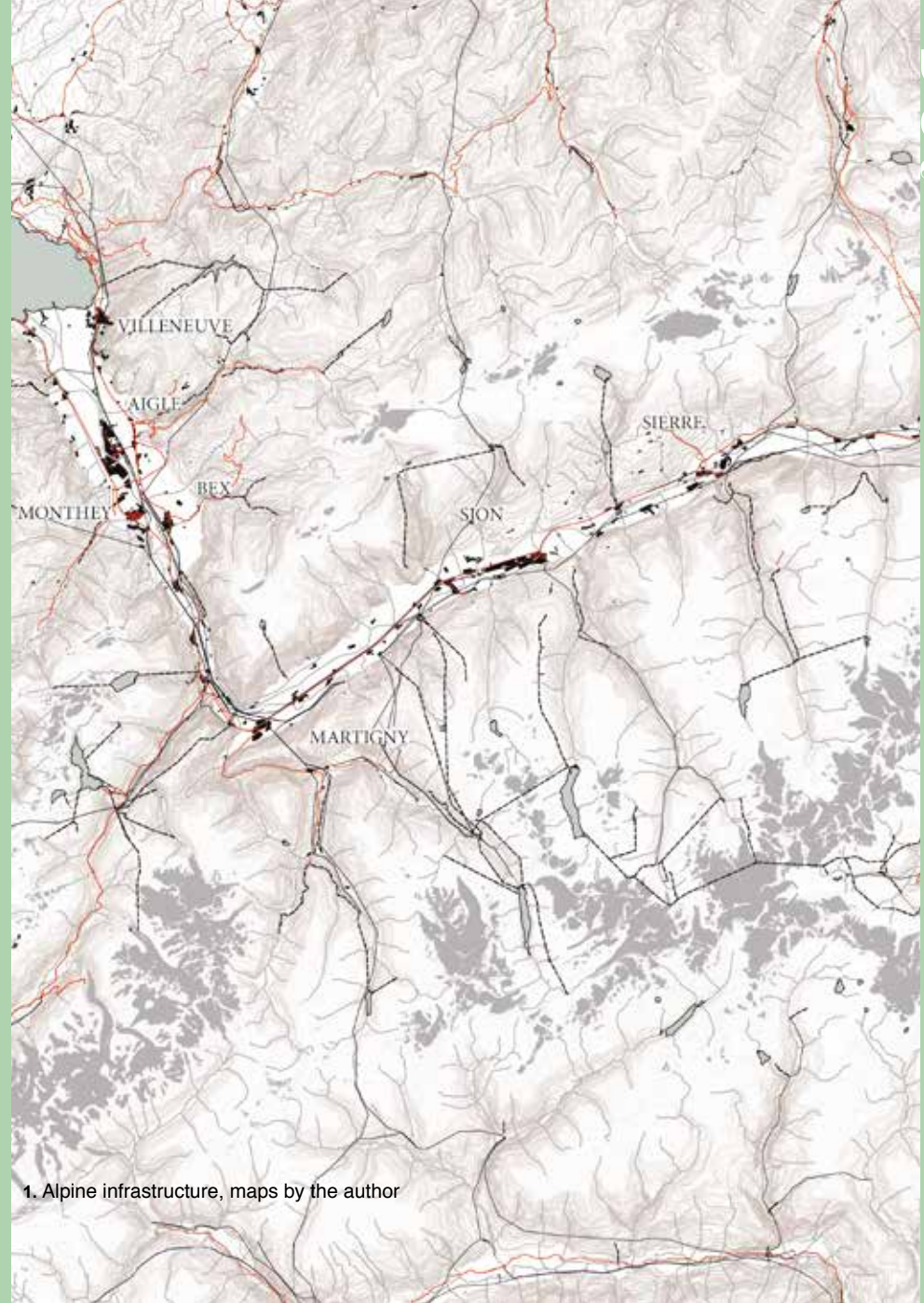
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# mention

## New alpine ecologies. Industrialization and construction of the city territory

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In the Alps, as in other contexts of diffuse urbanisation, industrialisation began as a rural rather than an urban phenomenon. The presence of endogenous natural resources and labour force (worker-farmers) widespread in the territory has in fact allowed the economic and urban development of the Alpine region despite the absence of large urban agglomerations. Thanks to the exploitation of hydroelectric power, large energy-intensive industries have been growing, concentrating mainly in the valley floors, promoting the intensive development of this part of territory to the detriment of more peripheral Alpine areas (secondary valleys). In the post-war period, only tourism was able to rebalance the economy in the medium-high mountain areas, where the crisis of the primary sector had opened a serious demographic decline. However, this economic shift between the primary and tertiary sectors has increased the environmental and social exploitation of the territory and, in the long term, has led to an unbalanced development of the Alpine region: the growing demands of mass tourism reward only the best performing and most commercially competitive tourist locations, which has condemned the other areas to a sad decline.



1. Alpine infrastructure, maps by the author

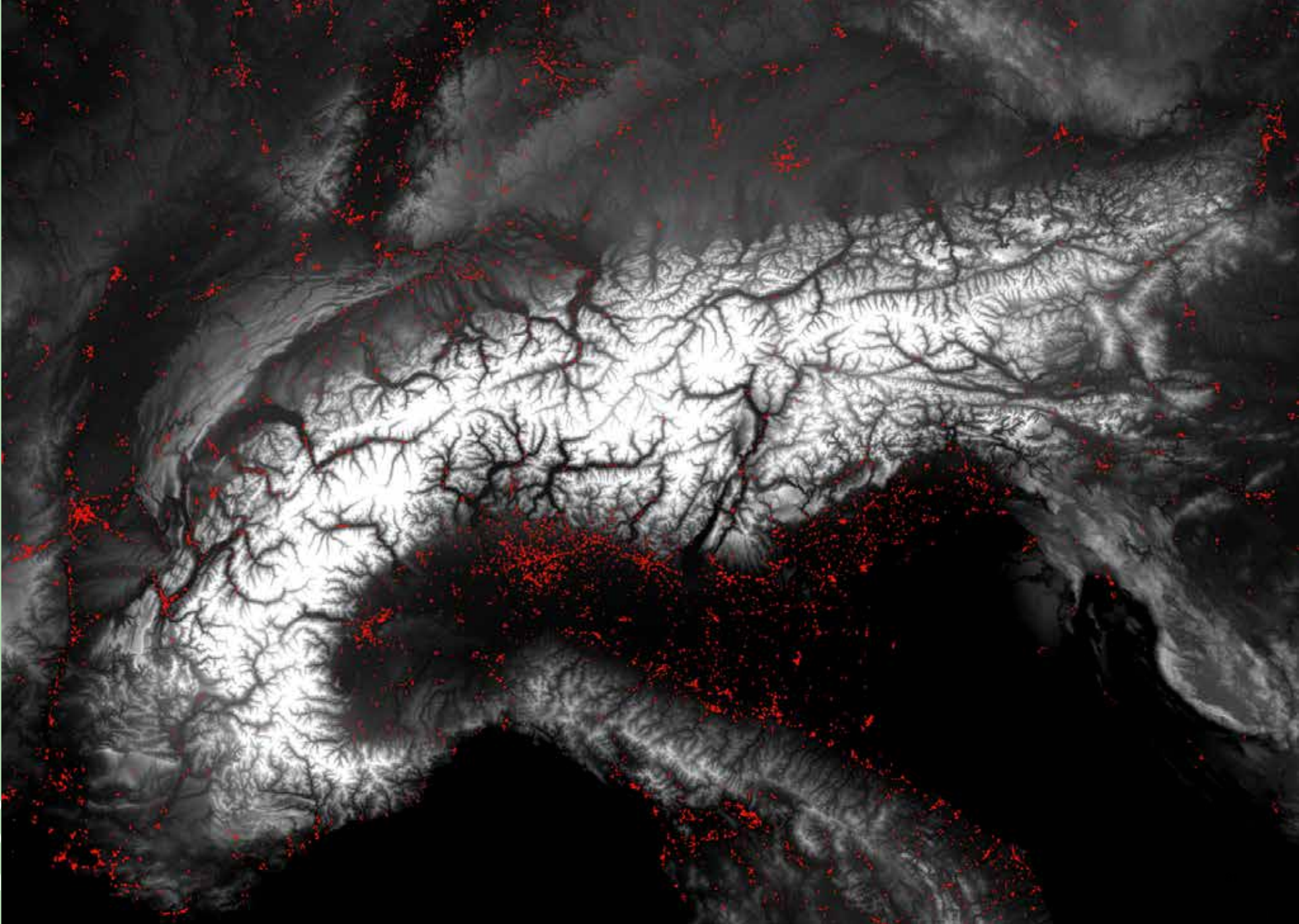


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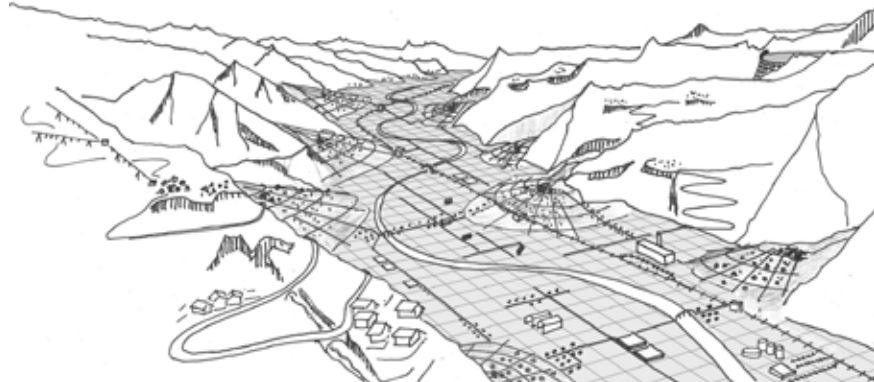
Today the strong development of the valley floor infrastructure, together with the development of the service sector at high altitudes, contributes to the construction of an urban image of the Alps that is insensitive to the delicate local ecologies and potential hydrogeological risks that characterize mountain areas. Travelling along numerous Alpine valley floors it is easy to come across a succession of intersections, logistical and productive areas, sheds, sewage treatment plants, incinerators, shopping centers, interspersed with agricultural areas and new residential parcels, as if we were crossing a large linear periphery.

The valley floor is essentially an infrastructural corridor, built on top of agricultural patterns, which is marked by the presence of large energy-intensive industries that exploit natural resources (especially hydroelectric power). Those industries were originally located along the valley floor according to a double logic: either between one inhabited centre and another, or in correspondence with the railway stations. Today diffuse urbanisation and coalescence phenomena tend to embed both categories within a continuous urban landscape. This process, linked to the desire for mimesis of the metropolitan lowland model, risks to reduce the attractiveness of this part of Alpine territory, exposing it to environmental risks due to land consumption.

Another dynamic that emerges when observing the Alpine territories is the strengthening of dependence relationships towards lowland metropolitan areas: the Alpine regions share, in fact, problems and challenges of emancipation typical of many European territories, i.e. the question of marginality as a consequence of metropolitan interests. A phenomenon in which globalisation tends to concentrate economic strength inside large urban centres, contributing to the downgrading of the so-called “internal areas”. The risk for the Alpine territories is therefore to be considered as extensions of lowland metropolitan areas.



2. Between Trento Nord and Trento Sud. Photo Caterina Segal  
3. The Wallis. Source: author





In the light of these considerations, the research makes a critical reading of those economic and settlement dynamics (polarization; marginalization; dependence; economic specialization) that today condemn the Alpine region to an unsustainable and discriminating future. The thesis therefore examines some themes such as the sustainable use of natural resources, an “industrialisation without fractures” (Fuà & Zacchia, 1983) and an a-gerarchic organisation of the territory, around which it identifies - later on - new directions for rethinking the city-territory project.

The key issues that have helped to contextualize and clarify the reasons for this investigation are: “the city-territory as a project”; “the Alps as a laboratory for Europe”; “the space of production as a reading key”.

### Hypothesis

The hypothesis is that a greater synergy between mountain territories and lowland metropolises, as well as the definition of a new industrial organization - which is not concentrated only in few poles in the valley floor - can contribute to structuring the economic and settlement development of the Alpine region with greater territorial equilibrium and environmental awareness than in the past.

Specifically, the re-discussion of Alpine marginality is explored through three themes

(presented in the second part of the thesis in terms of three paradoxes): the energy issue; the cross-border context; the metropolitan condition.

Through the construction of some potential images, the aim of this work is to structure an exploratory research open to the project, a description that enlarges the gaze, raising questions about a possible “light reindustrialisation” supporting a new habitability of the Alpine territories.

### A style of research

*“Urban planning is done with the feet”*

Bernardo Secchi

The research is the testimony of a great journey through the alpine city-territory, focused on the theme of its current and future construction. A journey in the physical space between Milan and Geneva, made strictly on foot, by bicycle or using public transport as much as possible. It is a remarkable sum of experiences in the field that allowed to study, represent and conceptualize the realities and the functioning of the contemporary alpine territories and to advance, at the same time, some hypotheses for a possible project. Every inspection is enriched by interviews to inhabitants or actors of the territory, sketches, diagrams, photographic carnets.

### The “City-territory” as a project

The city-territory offers project opportunities different from those of the traditional compact city. The condition of widespread urbanization has, for example, great design margins in terms of reduced consumption, energy production/storage, greater opportunities for functional mixité and, in general, it is a context in which new rules of coexistence can be more easily imagined and experimented. The thesis therefore starts from the hypothesis that the phenomenon of urban dispersion must first be described, interpreted and then governed through the reconfiguration of the territory itself, within a more horizontal and less hierarchical space. It is a project that interprets a new contemporary way of living and inhabiting the territories of dispersion, indicating concretely which are the figures of the territory to be enhanced and which elements to intensify in order to receive a coherent settlement and economic development.

### The Alps as a workshop for Europe

The Alps are a paradigmatic European territory where to study the changes in the relationship between artificial and natural rationality. A “fragile” territory, where the consequences of the socio-economic development model are manifested earlier than elsewhere. Moreover, the different Al-



pine regions share similar economic and socio-environmental criticalities, but at the same time they are subject to very different national policies and development models. In a limited space there are therefore different realities that lend themselves to a valid comparison, both from an urban and economic point of view. In this sense the Alpine area can be considered a series of neighbouring laboratories where the challenges for a different idea of growth, attractiveness and development of the European territory are extremized.

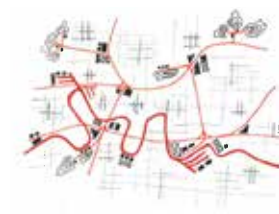
### Production space as a reading key

The space of industry has profoundly changed in recent decades. However, the wide literature of economic matrix that studied the dynamics of a new industrialization does not refer to space and territory but to global movements, both in the search for advantages in the containment of production costs and in the sharing of new workspaces. In this moment of economic transition in which there is not already a reference model that can help the reading real phenomena's, the study "on the field" of the changing relationship between territory and production is therefore fundamental to formulate original ideas and spatial proposals for the territorial development (Garofoli, 2017). To-

day it becomes more important than ever to return to observe the spaces of production on site, trying to imagine how the new forms of industry, placed in old models of territorialization, can contribute to the evolution of settlement inside the city-territory. In order to do this, the research builds an unusual view on the industrial and infrastructural landscape of the Alps, giving back - through different descriptive operations - the complexity of the existing spatial relations inside the Alpine area.

### FIRST PART

Production has had a decisive role in dictating the entity of the urban and infrastructural development of the alpine region. Since the second half of the '800 (after the exploitation of hydroelectric power) big industries using huge amounts of energy have "climbed up" the alpine valley floor together with the entire infrastructure required by industrial production (railways, tunnels, viaducts, logistics platforms, artificial basins, pipelines, power plants, etc.). These artificial and functional elements have become a sort of redundant "monuments" of the alpine landscape. In the post-Fordist era the emancipatory role of industry has notably decreased. In the canton of Valais (Switzerland), for example, the number of



First phase:  
Mining activities



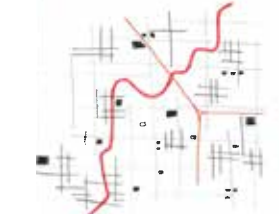
Second phase:  
Industrial Cities



Third phase:  
Industrial Zoning



Fourth phase:  
Suburban industry



Fifth phase:  
Dispersed industry

4. Industrial territorialisation. Source: author

employees in the secondary sector has decreased from 43% in the 60s-70s to the current rate of 26%, bringing back the values to the beginning of the century (Data: OFS). Over the last decades the alpine territories – where possible – have rebalanced their economy insisting in the exploitation of the mountain through accrued development of tourism and urban expansion (the first one took place mainly above 1400m and the second one in the valley floors). The Alpine region has quickly become a “playground” for the big cities of the plains and tends to be represented only as a district of the snow, or as an ecological oasis of good living on the edge of the metropolitan model (Meili et al., 2006; A.Bonomi, 2010). Changes in the economic system have affected policies, investment priorities, spatial hierarchies, and therefore the fragile social-economical and environmental equilibrium of alpine regions.

## SECOND PART

“Paradox” is used in this second part of the research as a logical tool to describe and conceptualize some examples of settlement crises of the Alpine region. By reviewing some “clichés” related to the three key themes -natural resources, the cross-border context and the metropolitan condition- we try to highlight in them paradoxical situations, or rather the theses that, by distorting the “clichés”, face the evidence of a territorial contradiction -expression of a spatial crisis- that therefore needs a solution in terms of urban planning.

1) THE ENERGY PARADOX, for a different exploitation of natural resources

It is well known that the Alps hold an enormous richness in terms of natural resources but, paradoxically, these resources are almost exclusively exploited by non-Alpine actors. Moreover, climate change and invasive exploitation methods are compromising the

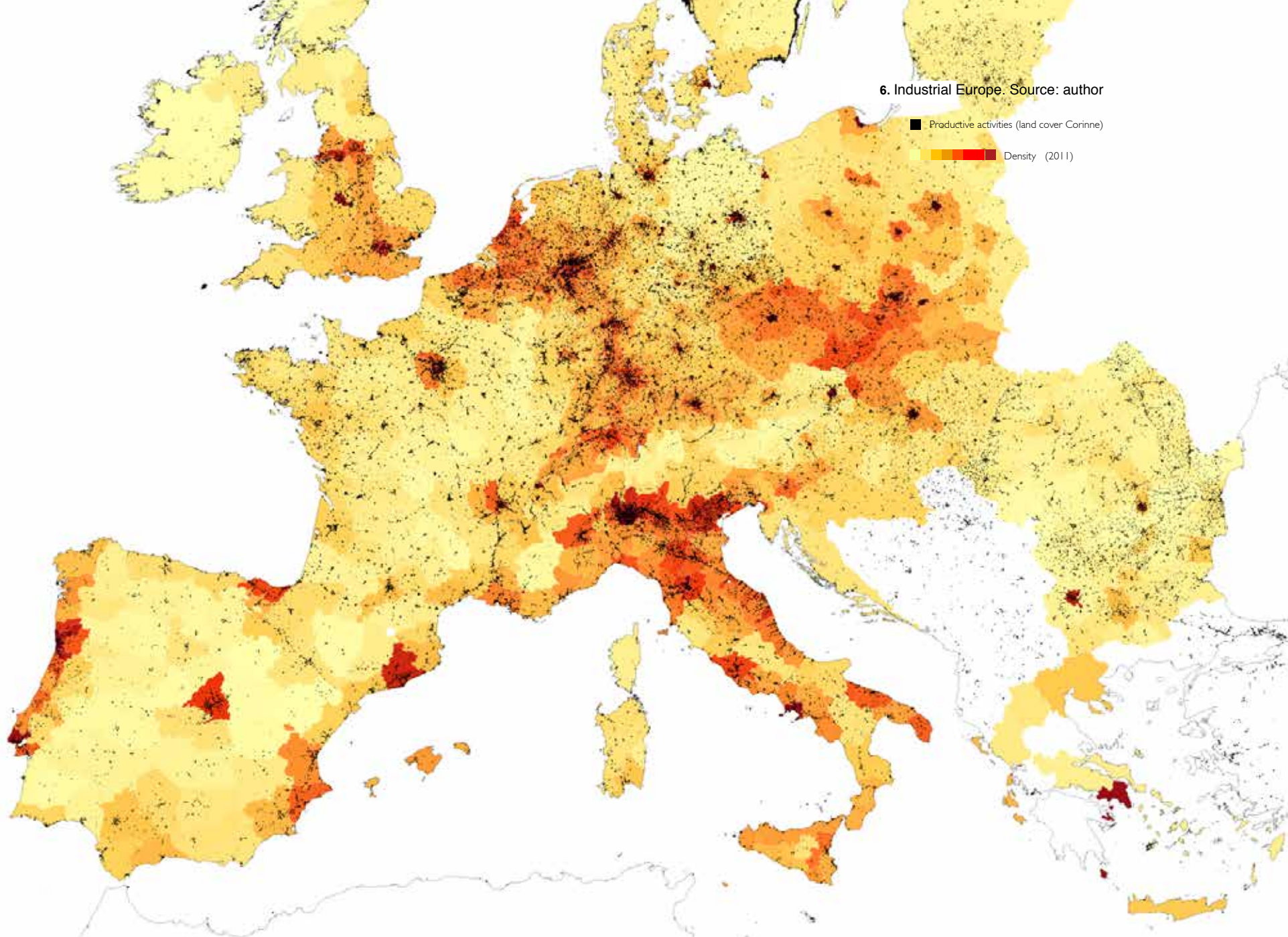


5. Tecnoparco del Lago Maggiore, Arch. Aldo Rossi, Photo by the author from the plane



# 6. Industrial Europe. Source: author

■ Productive activities (land cover Corinne)  
Density (2011)



## VALLI CORRIDOIO



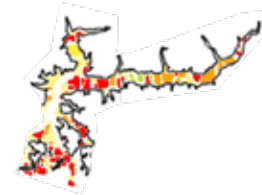
nome: Valle d'Aosta  
orientamento: Est - Ovest  
popolazione: 126 220 abitanti  
fiume principale: Dora Baltea  
città principale: Aosta (ab. 34 259)  
linea ferroviaria: ✓  
altitudine fondovalle: 250m-650m  
altitudine media: 2100m  
altitudine media case comunali: 951m



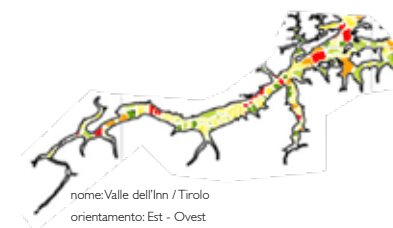
nome: Vallese  
orientamento: Est - Ovest  
popolazione: 339 176 abitanti  
fiume principale: Rodano  
città principale: Sion (ab. 34 000)  
linea ferroviaria: ✓  
altitudine fondovalle: 370m-680m  
altitudine media: 2140m



nome: Val d'Ossola / VCO  
orientamento: Nord - Sud  
popolazione: 66 500 abitanti  
fiume principale: Toce  
città principale: Domodossola (ab. 18 219)  
linea ferroviaria: ✓  
altitudine fondovalle: 193m-320m  
altitudine media case comunali: 554m  
altitudine: da 200 a 4609

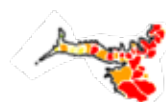


nome: Valtellina  
orientamento: Est - Ovest  
popolazione: 180 000 abitanti  
fiume principale: Adda  
città principale: Sondrio (ab. 21 558)  
linea ferroviaria: ✓  
altitudine fondovalle: 198m-425m  
altitudine: da 198 a 4021m



nome: Valle dell'Inn / Tirolo  
orientamento: Est - Ovest  
popolazione: 718 875 abitanti  
fiume principale: Inn  
città principale: Innsbruck (ab. 130 894)  
linea ferroviaria: ✓  
altitudine fondovalle: 450m-670m

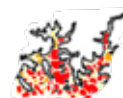
## APPENDICI DI CITTA'



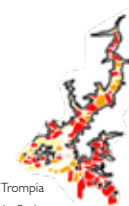
nome: Val di Susa  
orientamento: Est - Ovest  
popolazione: -  
fiume principale: Dora Riparia  
città principale: Torino (ab. 883 281)  
linea ferroviaria: ✓  
altitudine fondovalle: 340m-500m  
altitudine: da 300 a 3612m



nome: Valli di Biella  
orientamento: Est - Ovest  
popolazione: -  
fiume principale: Torrente Cervo  
città principale: Biella (ab. 44 366)  
linea ferroviaria: ✓ fino a Biella  
altitudine fondovalle: 400m-600m



nome: Val Seriana  
orientamento: Nord - Sud  
popolazione: 140 000 abitanti  
fiume principale: Serio  
città principale: Bergamo (ab. 120 741)  
linea ferroviaria: ✓  
altitudine fondovalle: 260m-560m

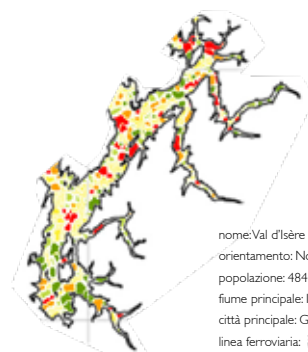


nome: Val Camonica e Val Trompia  
orientamento: Nord - Sud  
popolazione: -  
fiume principale: Mella  
città principale: Brescia (ab. 196 841)  
linea ferroviaria: ✓ fino a Brescia  
altitudine fondovalle: 170m-670m e 170m-370m

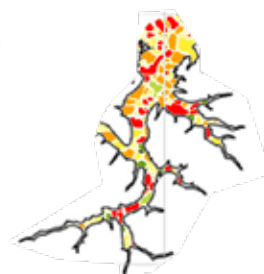
## 7. Taxonomy of Alpine valleys. Source: author



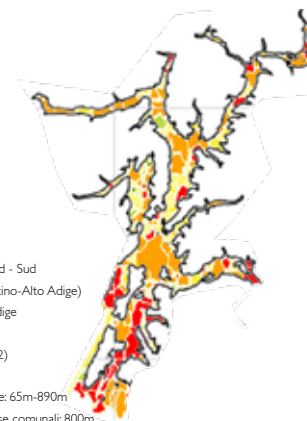
## VALLI ARCIPELAGO



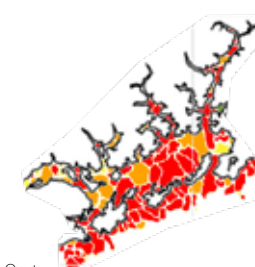
nome: Val d'Isère  
orientamento: Nord - Sud  
popolazione: 484 900 abitanti  
fiume principale: Isère  
città principale: Grenoble (ab. 157 424)  
linea ferroviaria: ✓  
altitudine fondovalle: 200m-706m



nome: Valle dell'alto Reno  
orientamento: Nord - Sud  
popolazione: -  
fiume principale: Reno  
città principali: Vaduz (ab. 5 300)  
linea ferroviaria: ✓  
altitudine fondovalle: 396m-690m



nome: Val d'Adige  
orientamento: Nord - Sud  
popolazione: (Trentino-Alto Adige)  
fiume principale: Adige  
città principale: Trento (ab. 118 052)  
linea ferroviaria: ✓  
altitudine fondovalle: 65m-890m  
altitudine media case comunali: 800m  
altitudine: da 65 a 3905m



nome: Val Belluna  
orientamento: Est - Ovest  
popolazione: 120 000 abitanti  
fiume principale: Piave  
città principale: Belluno (ab. 35 704)  
linea ferroviaria: ✓  
altitudine fondovalle: 240m-440m



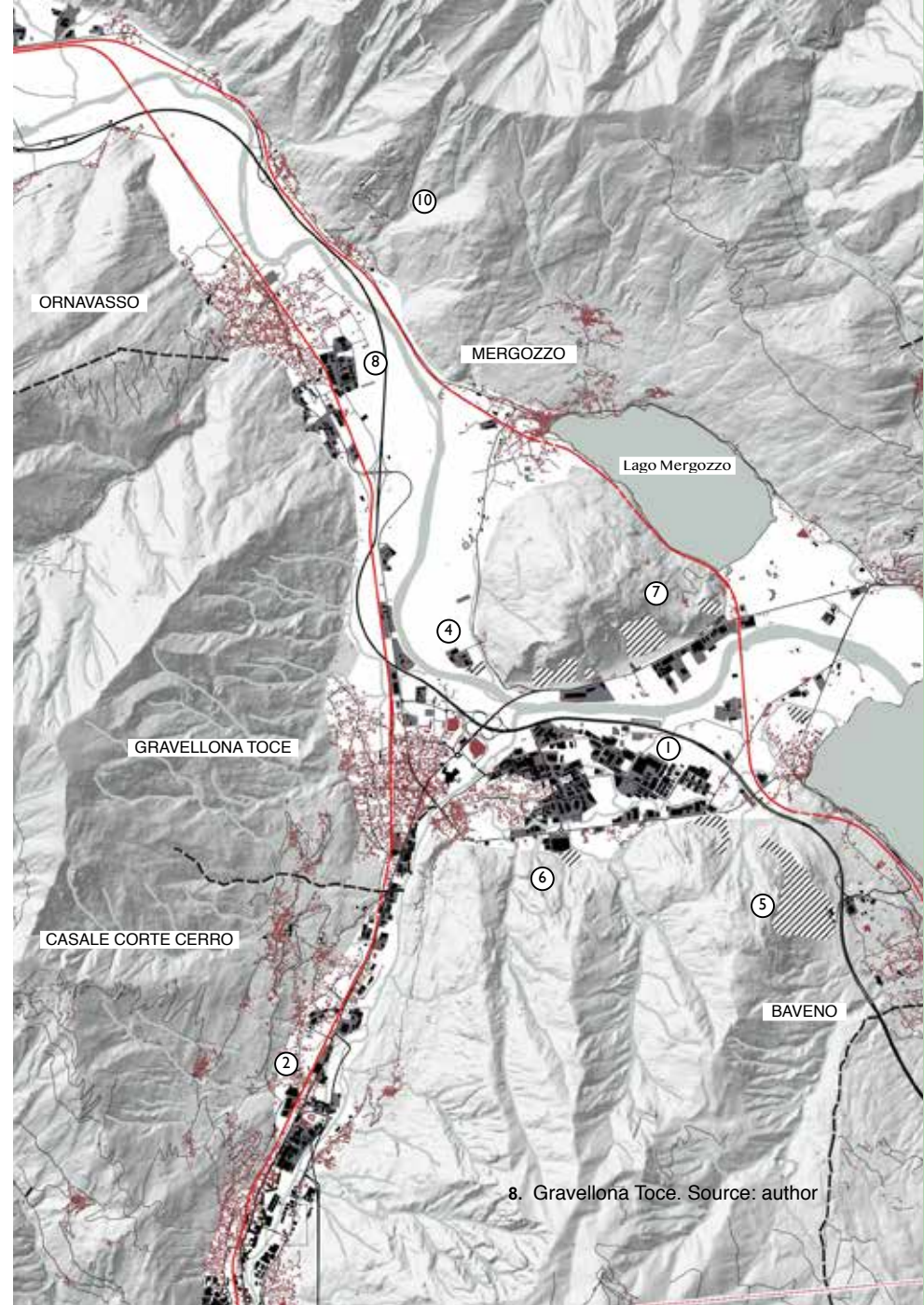
actual presence of resources in the medium to long term. Some leading economies (such as hydropower, winter tourism and mining), to which many Alpine territories entrust their economy, will be drastically reduced in the next decades. A new paradigm of valorisation of energy and environmental resources is therefore needed to associate an ecological approach to the economic development of the Alps.

## 2) THE CROSS-BORDER PARADOX, between marginality and new urban conditions

The Alps are considered in the common imagination as an obstacle to be crossed, a marginal territory placed on the periphery of social and economic development, while they are at the centre of Europe and host infrastructural and urban nodes that build relationships and specific ecologies between different nations and cultures. The goal of a territorial cohesion policy should be to understand and strengthen the potentialities and the weak relations already existing between the different parts of the territory, recognizing the possibility for the Alpine territories to emancipate and develop according to horizontal logics, thus avoiding the strengthening of the dependence of the Alpine territories towards the lowland metropolis.

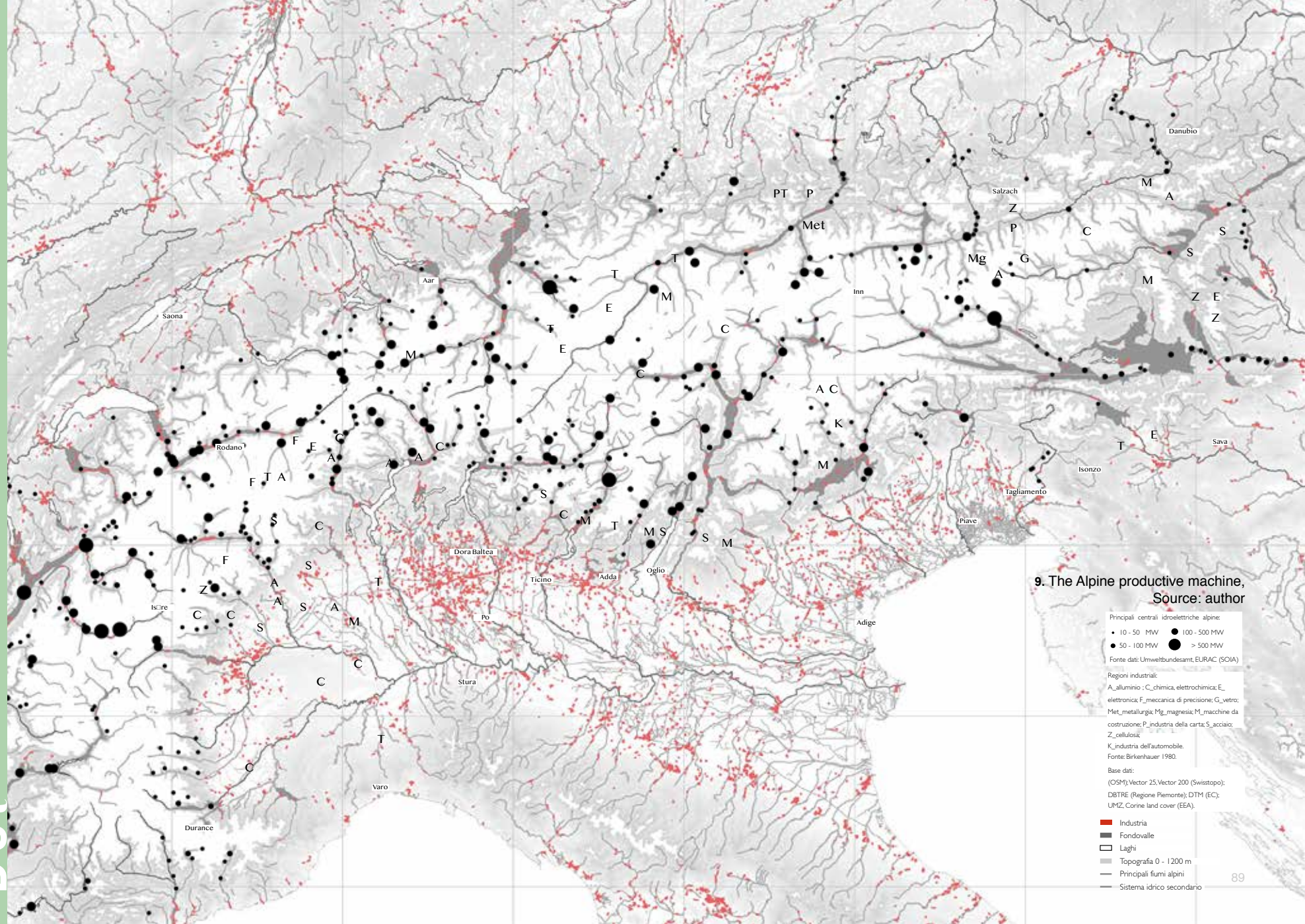
## 3) THE METROPOLITAN PARADOX, towards a differently attractive territory

In popular thinking the Alps still preserve the idyllic image of the mountain pastures with the isolated chalet, situated in the middle of a vast virgin nature. Actually, the “rural” elements of the Alpine landscape, together with the industry of the valley floor and all the infrastructures linked to them, have provided the settlement and economic support to the progressive and exponential urbanization of the Alps. The alpine territories are therefore extremely attractive, but this attractiveness is concentrated only in certain areas of the



8. Gravellona Toce. Source: author





## 9. The Alpine productive machine, Source: author

Principali centrali idroelettriche alpine:

- 10 - 50 MW
- 50 - 100 MW
- 100 - 500 MW
- > 500 MW

Fonte dati: Umweltbundesamt, EURAC (SOIA)

Regioni industriali:

A, alluminio; C, chimica, elettrochimica; E, elettronica; F, meccanica di precisione; G, vetro; Met, metallurgia; Mg, magnesio; M, macchine da costruzione; P, industria della carta; S, acciaio; Z, cellulosa; K, industria dell'automobile.  
Fonte: Birkenhauer 1980.

Base dati:

(OSM): Vector 25, Vector 200 (Swisstopo);  
DBTRE (Regione Piemonte); DTM (EC);  
UMZ, Corine land cover (EEA).

- Industria
- Fondovalle
- Laghi
- Topografia 0 - 1200 m
- Principali fiumi alpini
- Sistema idrico secondario

### THIRD PART

1. The first concerns the need for a new paradigm for the valorisation of the territory and its natural resources, which provides a greater ecological-economic synergy between the different actors of the territory and between all levels of the city-territory (valley floor, slopes, secondary valleys, high mountain areas);

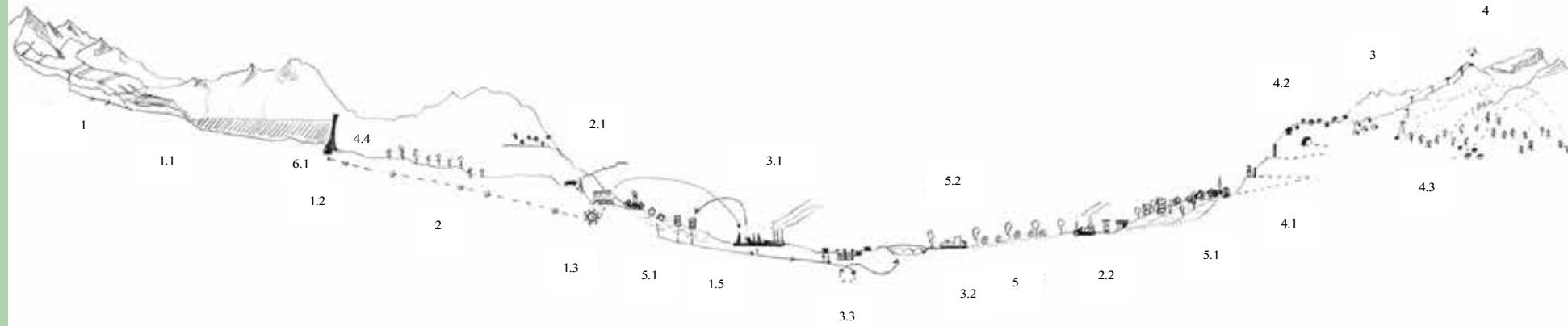
2. The second one underlines the need to re-invest in the places of production, identifying a new balance and a new integration among the different actors (economic and political) that allows the Alpine territory to participate to the metropolitan economic system, minimizing negative externalities, avoiding therefore to endure its dependence;

3. Finally, the third point raises the importance to make explicit and strengthen the network of relational ecologies at local and global level, encouraging cross-border dynamics and federating projects between the different parts of the Alpine territory.

90







11. "The alpine valley section", diagram by the author

We will therefore try to enrich and articulate these three considerations through the proposal of three respective project images for the definition of the "new alpine ecologies": 1) the "Productive mesh for the Alpine city-territory", which insists on the need for a more sustainable economic and settlement organization consistent with the specificities of the territory, a territorial structure possibly facilitated by a new administrative *découpage*; 2) the "Alpine-metropolitan figures", that force the existing synergies between alpine territories and lowland metropolis, in the idea that the two parts should work together and enrich each other thanks to their respective complementarities; 3) the "Network of alpine valleys", that highlights the potential of a system of different alpine territories: a new federative geography that brings a political awareness of the Alpine region in Europe.

## CONCLUSIONS

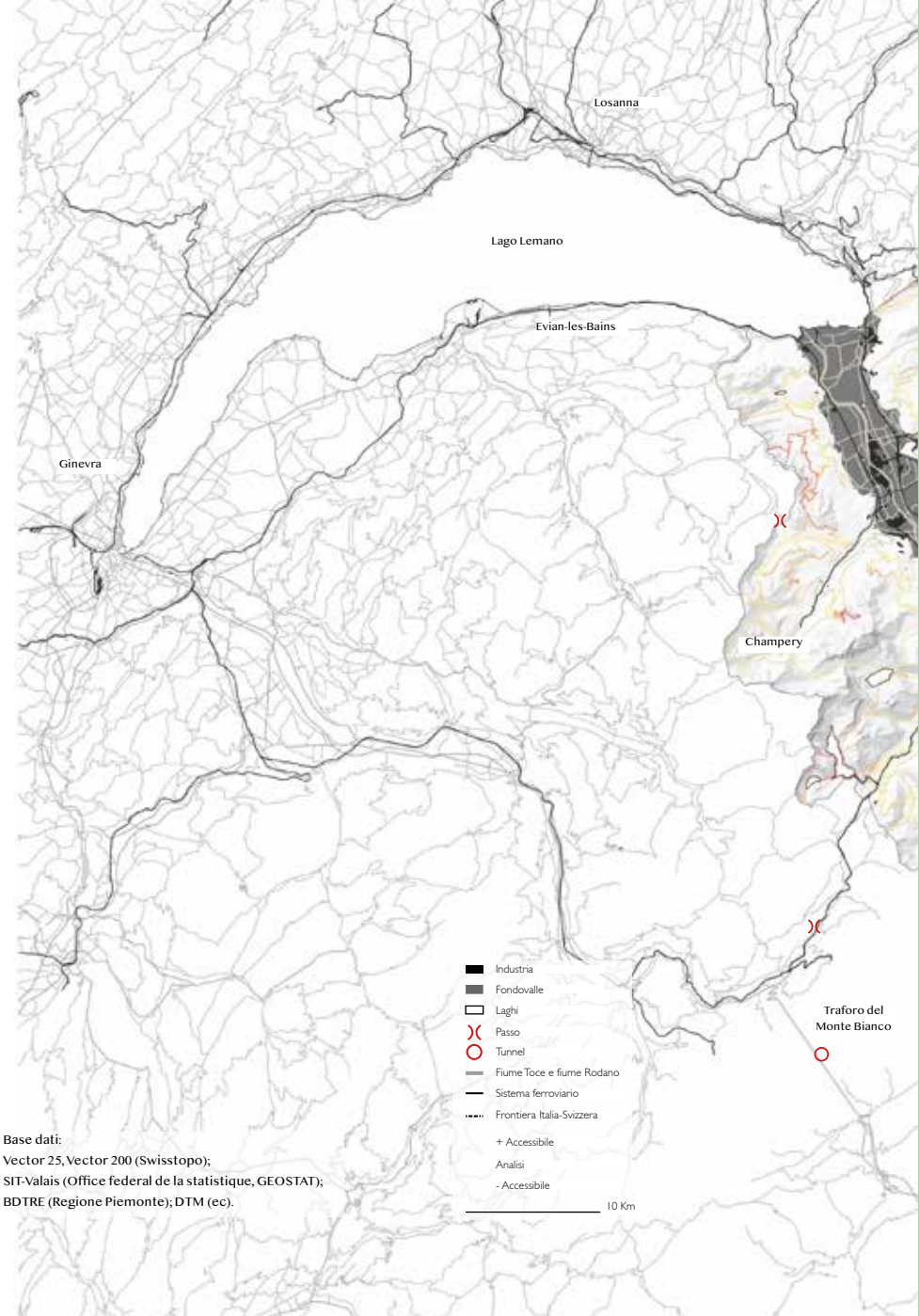
As a whole, the present research builds a new representation of the Alpine territories able to introduce in the debate on the future of the Alps different and more articulated images than those that can emerge from the sterile contrast between marginality and urbanity, or from the trust in the tourist economy as the only perspective of development. This thesis supports the possibility for mountain territories to overcome the logic of dependence thanks to federative strategies between city and mountain, "mutual aid" between valley floor and secondary valleys, productive integration and endogenous development. The reasons of a "horizontal" territorial development model -inclusive of all the altimetric levels of the Alpine city-regions- are argued: a synergic and systemic strategy, which takes strength from a new administrative governance based on the geographic-functional integration of the Alpine-metropolitan space. The thesis contributes to the acquisition of a new awareness of the role of industry in the Alpine region, a complex space, incessantly

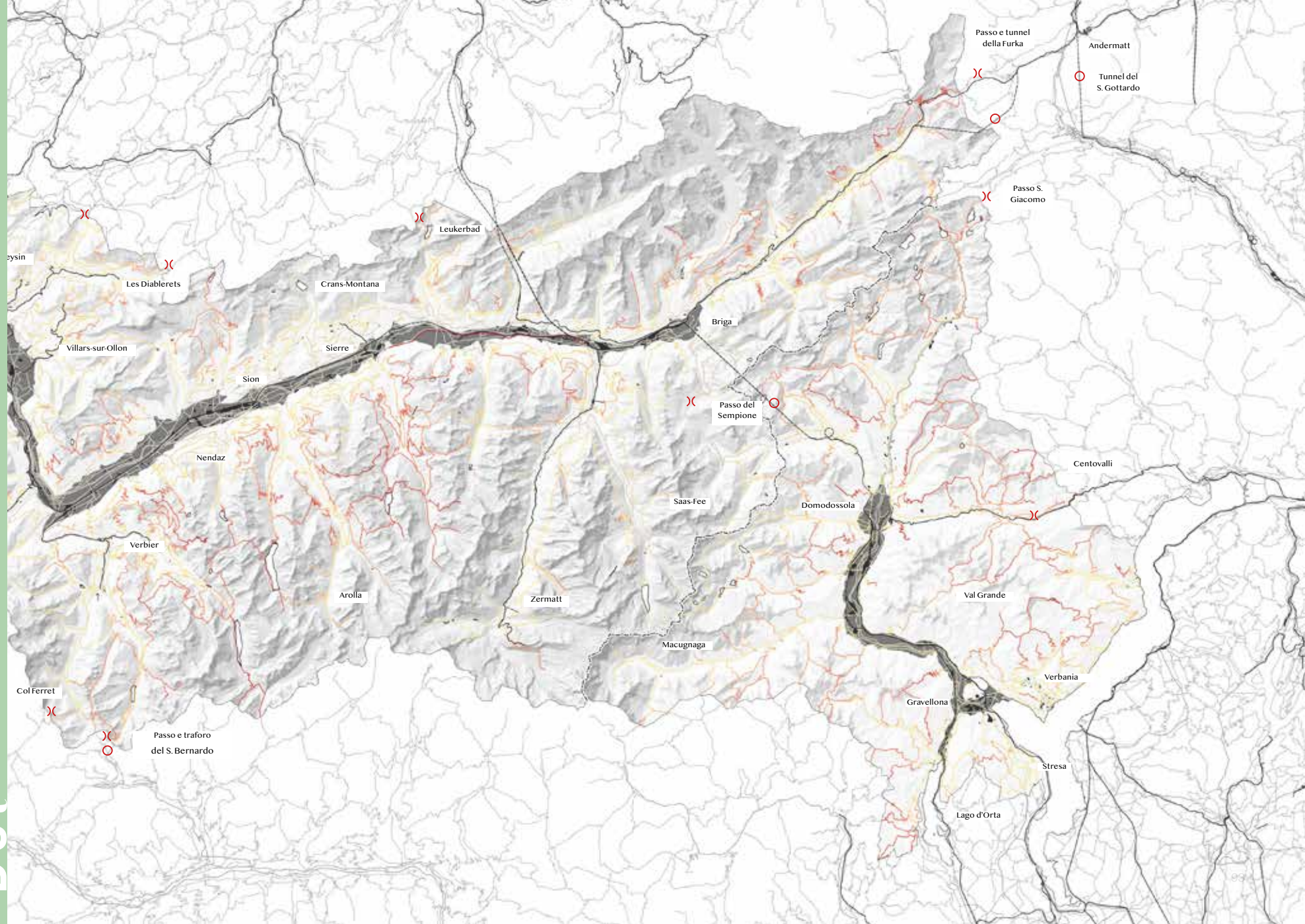


shaped by nature and man. The “New Alpine Ecologies” -declined through three project images- suggest a new look on the future of the alpine region, associating to the compromises between ecology and economy a spatial justice perspective.

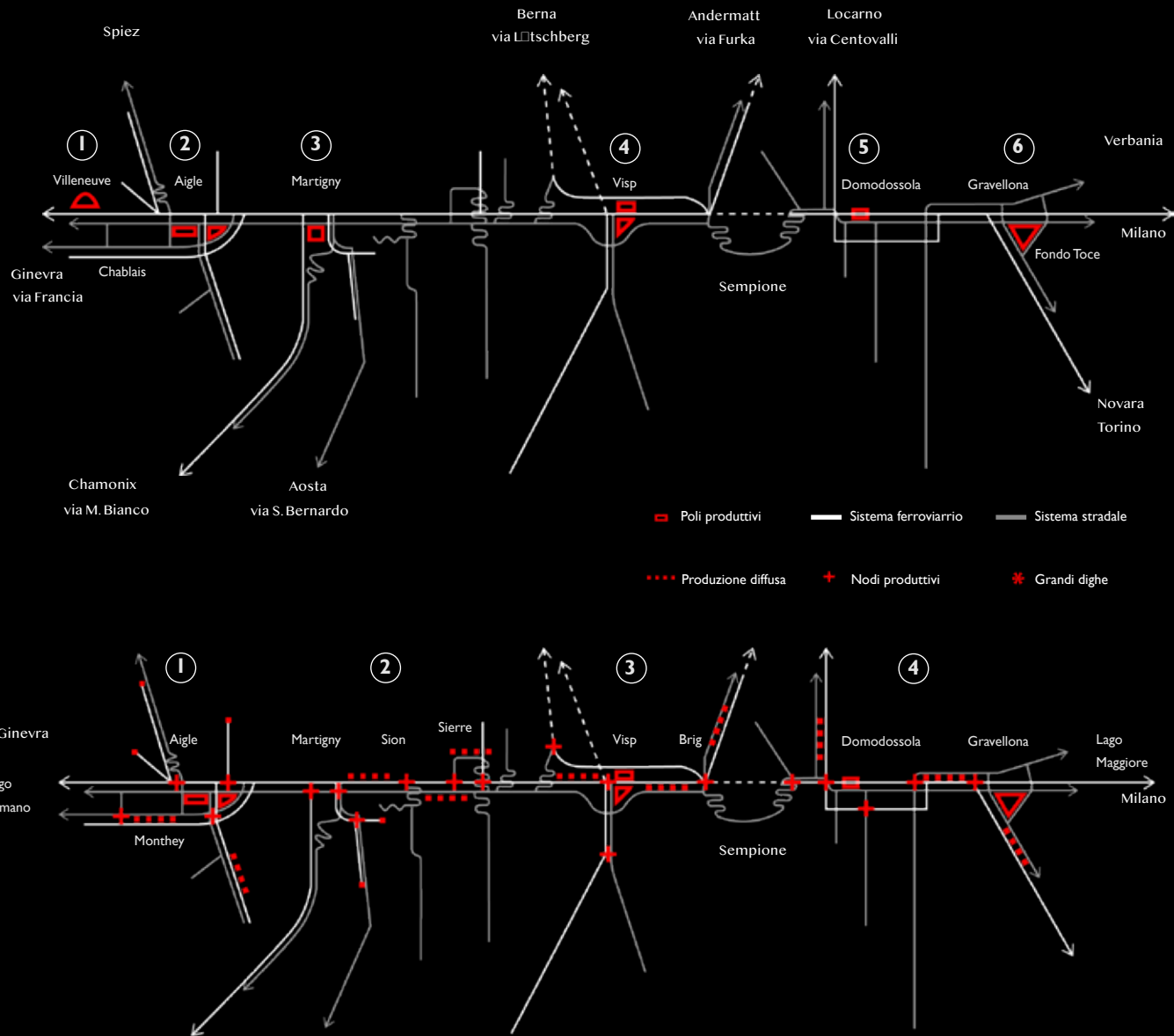
The local scale, guardian of the specific heterogeneity of each single territory, is to be considered for the alpine space the key dimension able to interact with the economic dynamics at the European and global scale. The concept of the “Productive Mesh” enriches the process of spatial diversification and stratification of the Alpine city-territory, encouraging the coexistence of industry and urban development in a specific geographical/morphological context. The research proposes therefore to consider the production spaces as elementary settlements that, together with the related infrastructures, can stimulate the extended habitability of mountain territories.

12. Crossborder context. Source: author





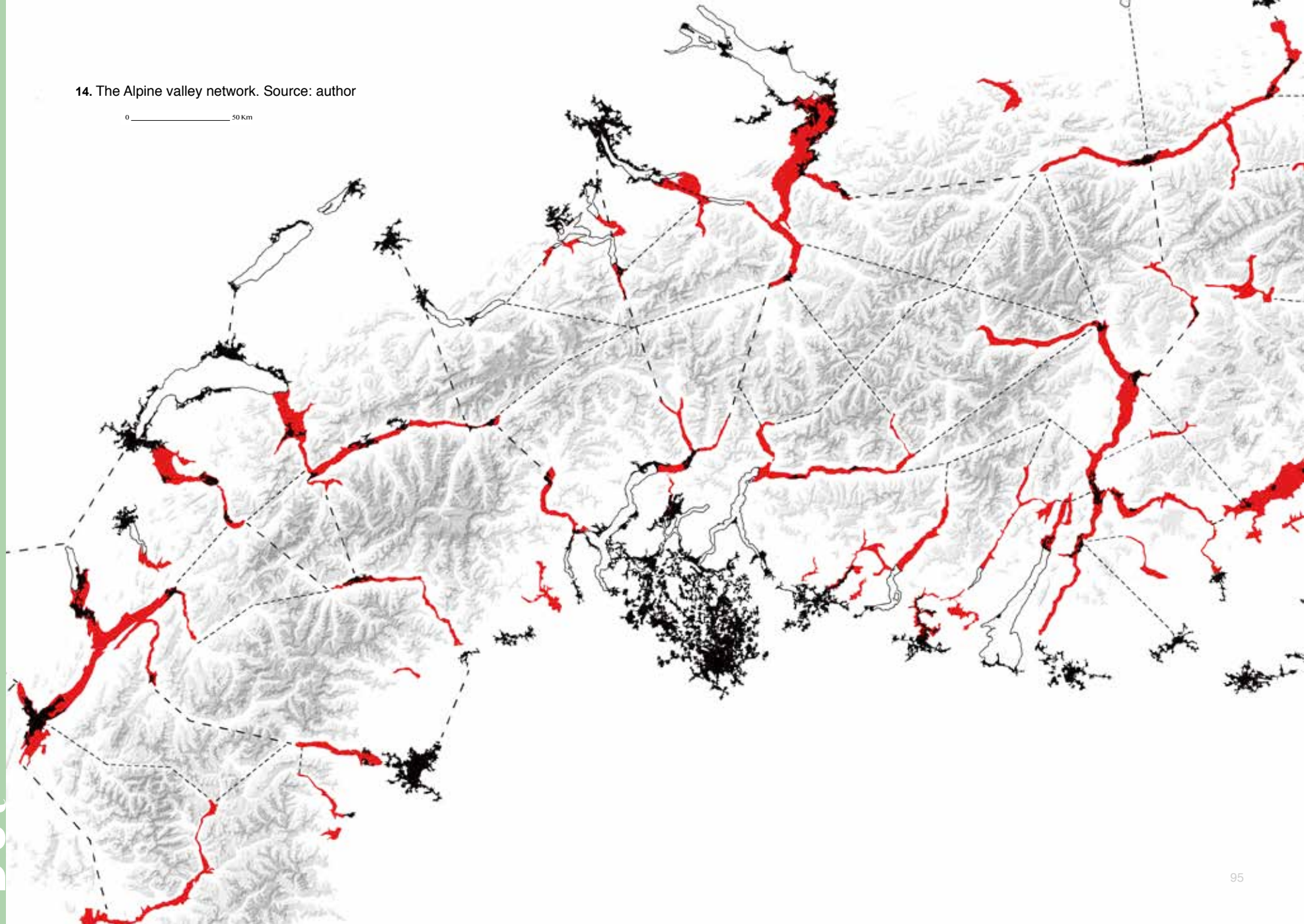




Alpine productive mesh: Actual/Project. Source: author

14. The Alpine valley network. Source: author

0 50 Km





## Atlas of the port of Maó

**Author** Toni Vidal Jordi  
**Supervisor** Magda Mària Serrano  
**University** Universitat Politècnica de Catalunya - UPC  
**Jury members** Cristina Jover Fontanals (UPC),  
 Eduard Callís Freixas (UPC), Francesc Muñoz  
 Ramírez (UAB), Jordi Sardà Ferran (URV),  
 Joan Enric Vilardell Santacana

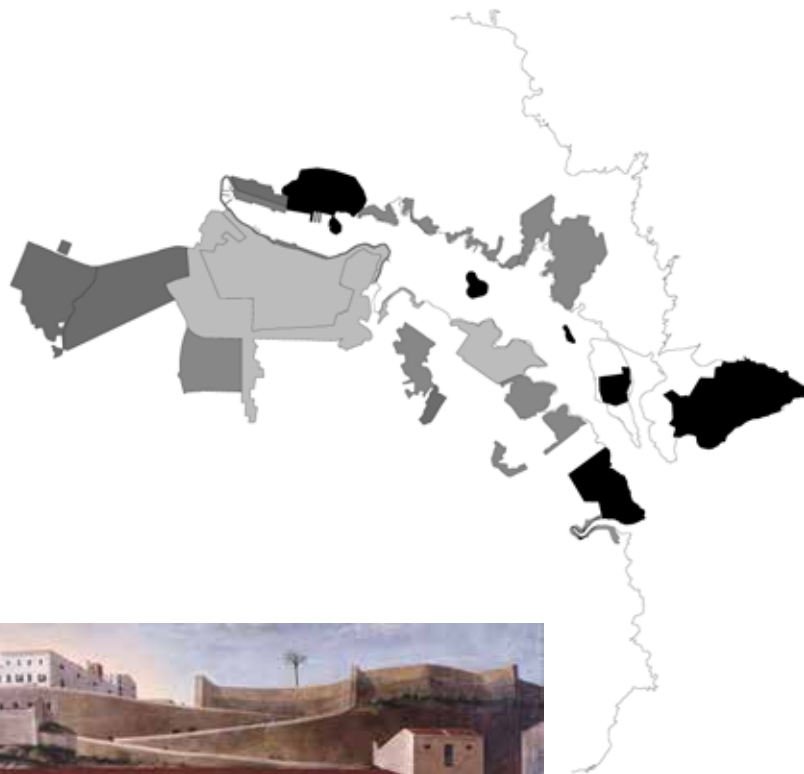
An investigation into the Port of Maó, on the easternmost Balearic island, Menorca, was considered relevant due essentially to the fact that it is an enormous, yet urban infrastructure. A natural estuary, a natural infrastructure, which influences all aspects of the city.

*"[...] the city coexists in a maximum condition. The city is fully engaged with it. Maó and Es Castell embrace, without funnels, to form the port valley. A city, the island capital, home to 28,592 inhabitants, and an adjacent town with a population of 7,348, which, together with the 6,892 inhabitants from the nearby municipality of Sant Lluís, comprise a metropolitan area of more than 42,000 people; half, de facto, of the population of Menorca. The densest and most urban part of the island; even more so if we take into account the close proximity, just 12 km away, of the town of Alaior, with a population of 9,012 inhabitants [...]"*

<sup>1</sup> Vidal Jordi, Toni. *Atles del port de Maó*. Volum 2. PhD Thesis. Introduction, p. 11.

1. Model of the port Maó. Atelier Arnaboldi. USI-Accademia. 2017-2018.





Its status as a Port of General State Interest also places it under a legal domain that not all urban infrastructures or centres have. An urban infrastructure where everything coexists within a closed valley: commercial, logistic and recreational traffic; city, town and housing estates; the energy industry and a vast heritage—much of it in disuse—of medical and military origin, heir to past domination, planned on a state or imperial scale; yet almost never, on the scale of the port or island.

An imbalance, that of the large size of its natural, infrastructural and military heritage, which was balanced or, at the very least, non-conflicting until well into the second half of the 20th century. Testament to this is the olive oil that may be seen in the Museum of Menorca, housed within the Estela warehouses, where, in the mid-19th century, all activities and estates, the bourgeoisie and civil and ecclesiastical power, rubbed shoulders, coexisting in one single space; Salvador Almirall's *costumbrista*-style photographs reflect the leisurely appropriation of the port's space; or the splendid photographs by Toni Vidal Miquel from the late 1950s, in which everything coexists and everything seems to flow in the port with no apparent conflict.

A situation that reflects, as a still photo, the American flight from 1956. Between that same year, in which construction on the Port Mahon housing estate began on the cornice of the city, and 1975, the year work began on the Sol del Este housing estate, in just 19 years, the port's urban footprint increased 2.5-fold, with the city's new growth, housing estates and the industrial estate. This expansion also coincided with the almost total abandonment of all military activity, and the emergence of 158.39 ha of disused heritage space, which we have come to call CRITICAL ENCLOSURES.

2. Critical enclosures -on black- over the urbanized footprint of the port of Maó. Drawing by the author.

3. Magatzems Estela. Oil on canvas. Anonymous. Maó: Museu de Menorca

4. Cales Fonts, Moll den Pons Es Castell. Toni Vidal Miquel, photographer. Ca. 1960.

5. Baixamar, Maó. Joan Sturla, photographer. Ca. 1960.

6. Moll den Pons Es Castell. Toni Vidal Miquel, photographer. Ca. 1960.

## Opportunity and validity

For more than twenty years, the question surrounding its recovery and use as a potentially productive vector on the eastern side of the island has been looming. Today, in Maó, the immense efforts made to promote recreational sailing coexist with other situations which lay bare the devastation experienced by the city's heritage: by the old naval base, the Illa del Rei Hospital, the La Mola Fortress, the Llatzeret and the string of old hotels along the Fonduco docks.

This research was also fuelled by the conviction of the validity of the topic under investigation and the opportunities it holds. All it takes is one glance at the local press, which has filled numerous covers and pages over the past 10-15 years on the subject of the Port of Maó. Recently, furthermore, in the midst of the climate emergency, the focus has shifted to the continuity or potential dismantling of the island's main –and currently irreplaceable– energy source, the GESA thermal power plant, located on the port's *Colàrsega*, at the end of the estuary.

## Research - Criticism - Professional activity

The collection of heritage sites currently in disuse, based on a free yet rigorous scaled drawing, which we called the “constellation of disuse”, served, in 2016, to illustrate the course *Reocupar el port* [Reoccupy the Port], organised by the Architects' Association of the Balearic Island on heritage sites in the Port of Maó. With this thesis, we have taken part in fora such as the exhibition and course *El port de Maó des de Mendrisio* [The Port of Maó from Mendrisio]; many other local debates, as well as debates on coastal and port dynamics, which we have seen are becoming increasingly recurrent. In addition, we have benefitted from establishing a common cross-cutting theme throughout the research, the critical dimension of the port and the professional activity, taking part, sometimes successfully, in competitions and works in which we have transmitted our knowledge of the port landscape's underlying logic.



7. Recent news about the port on the local press. Menorca, *Diario Insular*, 2013-2019



8. Related events on the validity of the doctoral topic.



## Approach - Two volumes

Having identified the relevance of the topic at hand and the opportunities it holds, the research was organised into two clearly distinct volumes. The first, a catalogue that includes as many examples of architecture from the Port of Maó as we could collect and identify, with a view to conducting a thorough critical analysis of a territory that has been subject to numerous overlapping dynamics. A compilation we felt was essential to making a solid judgement.

After gathering information on and documenting 309 examples from an area restricted by a setting-based criterion, the idea was not to create an architectural guide of the best the port has to offer. It is not a hierarchical document. Neither is it an exhaustive qualitative inventory of all the architectural examples we found: it is a catalogue of everything we were able to gather, whether out of interest, intuition or opportunity. As a result, it provides information with sufficient quality to write about the port.

A chronological graphic chronicle, organised, in turn, by periods based on the main historical and political vicissitudes of the port and island. A compilation aimed at identifying the landscape in full and not in a fragmented manner, with the understanding that administrative divisions are not relevant. Neither between cities, nor between cities and the port manager.

An inclusive approach that has borrowed postulates on the value of chronicles from authors such as Walter Benjamin, in *On the Concept of History*:

*"The chronicler, who details the events without discerning between large and small, takes into account the truth that nothing that ever happened can be considered lost in history"*<sup>2</sup>

<sup>2</sup> Benjamin, Walter. 1939. "On the concept of history". (TbA)

Or others like Umberto Eco, who justified the pertinence of the ugly, of the dirty. Of the ordinary, in *Storia della Bruttezza*:

*"It is almost always difficult to establish to what extent certain concepts can be identifiable with our own, although tradition has led us to translate them into Western terms such as 'beautiful' or 'ugly'. [...] We realise that what was considered proportionate in one century was no longer proportionate in the next one [...] The concepts of the beautiful and the ugly are in relation to different historical periods or different cultures"*<sup>3</sup>

This compilation therefore features old architectural examples; monumental and ecclesiastical; bourgeois; logistical, heavy; port planning documents; signature architecture; multi-family buildings; 19th-century military architecture, previously the most studied typology; ordinary, anonymous buildings; buildings which have disappeared; theoretical architecture; approaches to urban planning; and moments of intensification and speculation; episodes of maximum social validity; yet always, without losing sight of where the best architecture is, what it is.

<sup>3</sup> Eco, Umberto. Pons Irazazábal, María, translation. *Historia de la fealdad. Storia della bruttezza*. Barcelona: Lumen. 2007 (TbA)



9. Study cases on the volume 1 of the PhD thesis. Drawing by the author.



An approach that integrates all of the landscape's conditions, yet without neglecting the disciplinary starting point. A way of doing things, a method –the worksheet, first, then the cross-cutting report, intertwining cases and historical periods– employed by and explored as part of the UPC's Habitar Research Group, within which this research is framed.

This initial volume, CATALOGUE, sceptical, which could well have been a subsidiary and subordinate annex, yet which was organised and published beforehand, gave rise to a second volume, which we could have called CRITICAL. This second volume contains a cross-cutting account of the landscape, drawing from observations and typological identifications, yet also from social dynamics and intuition.

### Collection and re drawing

We were also aware of the analytical and critical potential of Redrawing. In this regard, our objective was to, in modest fashion, create a new graphic representation of the port; a new drawing of a known world, shown, however, in a novel manner.

### Objectivation

Aware of the difficulties inherent in generating an overly subjective discourse due to the immense social conflict identified in the port condenser, the decision was made to highlight and objectify this cross-cutting nature as much as possible. Divided into 8 chapters, all accompanied by an introduction and arguments, as well as conclusions in the way of a critical and prospective reflection, this intertwining story about the port revolves around 8 objects, 8 nouns, which reduce the topic to that of which we have significant and precise knowledge regarding the Port of Maó.

*Setting*

*Borders*

*Artifices*

*Hospitals*

*Hotels*

*Houses*

*Factories*

*Opportunity*

Of these, there are three that we can understand as linked to the context: to the container and, as a developed introduction which exposes the particular nature of the port, to its TOPOS; they are a constant reminder of the circumstances of its conflict:

*Setting*

*Borders*

*Artifices*

The following four refer to the objects: the content of this container and the TYPES, their disciplinary typologies, affected or promoted by the dynamic vicissitudes of the container:

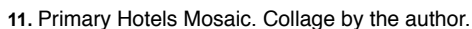
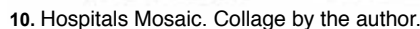
*Hospitals*

*Hotels*

*Houses*

*Factories*

Finally, the last of these eight chapters, OPPORTUNITY, clearly indicates its application: a critical reflection about future PROSPECTS.



We have taken the opportunity this abstract presents to reverse the order of these two groups, and began by discussing the Types, the objects, which have invariably shaped and will likely continue to define this landscape. An objective and timeless approach, which may subsist regardless of the contingent situations.

Mahon is a port that may largely be explained by the significance of the hospitals to which it has played host, of which none remain in operation; hospitals which were planned based on large-scale strategies that far exceeded the needs of the island, as in the case of the Illa del Rei Naval Hospital or the Llatzeret, which came to us in disuse or in a critical situation due to inadequate responses on the part of the to the local authority. Many have been reformulated –almost never successfully– under the auspices of knowledge and research, while, in recent times, some have even been considered as candidates for hotels. Their dispersion throughout the landscape, mostly centred around the port islands, with the exception of the Hospital Verge del Toro, is important: it is a landscape of –old– hospitals.

At the same time, the Port of Mahon may be explained by its hotels. It was the cradle of the island's first forays into the hotel industry, making the transition from a romantic, almost adventurous setting, one closely connected to hiking, to the consolidation of the phenomenon as a genuine industry. Until the change in logic of the tourism phenomenon, following which the beach became the main attraction.

A hotel phenomenon comprised of establishments with intimate links to the sea and a clear maritime and sometimes scenographic spirit; we are talking about hotels by architects such as Josep Claret, Mateu Seguí and Pedro Luis Mercadal, which evolved into hotels of a specifically urban or rural nature. The state of abandonment of the Fonduco complex, splendid in its day, with the Rocamar hotel as a sad paradigm, is particularly surprising.

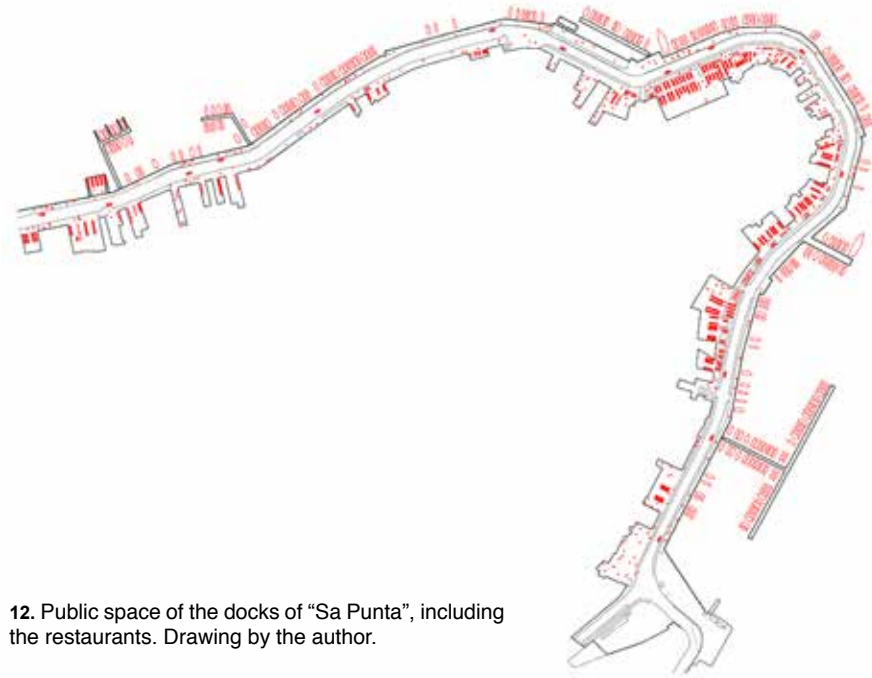
The arrival of tourism, however, would far surpass hotels: it was necessary to provide guests restaurants and promenades. During the past 30 years at the port, many of the old warehouses which once served to store wheat or house shipwrights have morphed into recreational establishments, into restaurants or commercial premises. This marked the beginning of the intensive trivialisation of the port's heritage, as manifested, in certain cases, by the new mobile hotels –a commitment to cruises–: Mahon, like Venice. This decision is quite shocking, with frequent reports of constant hold-ups in traffic: Mahon is no place for large boats.

### Houses: residence, rest and urbanisation

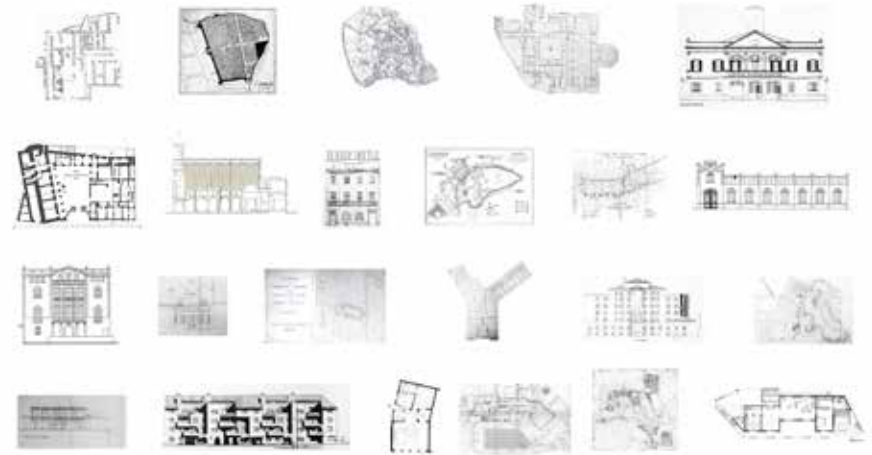
Within the port area, housing is not allowed. So states the *Spanish Ports Act 27/1992*<sup>4</sup> and its subsequent amendments. There can be no houses on port property. This obviously depends on what we understand by the port's boundary. However, a broader reading of the port container sheds light on the dominant use.

We have been using the mosaic, as an added value to the finished atlas in the thesis itself, for well over a year. There are houses on the cliff; others near the water; not to mention in Baixamar, which correspond to a highly specific and highly privileged typology, that

<sup>4</sup>The *Ley de Puertos del Estado 27/1992* defines the conditions, limits and uses of the so-called "ports of general interest of the State", of which Mahon is one. It is not, therefore, a port of local or regional interest.



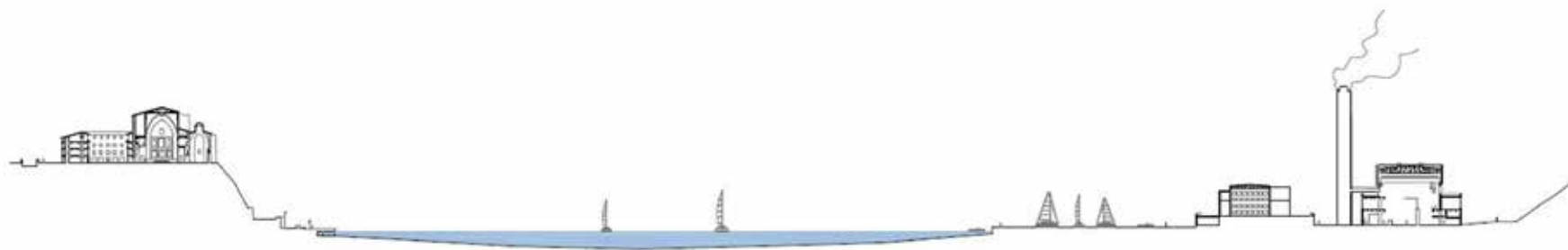
12. Public space of the docks of "Sa Punta", including the restaurants. Drawing by the author.



13. Housing Mosaic. Collage by the author.



14. Industrial Mosaic. Collage by the author.



15. Cross section of the end of the harbour. Drawing by the author.

of terraced housing; the port also offers multi-family flats; and the port shows us the first testimonies of tradition and rest, of a playful appropriation of the landscape, recreational. It has become so inhabited that houses have even taken possession of the upper floors of old warehouses in Baixamar, atop the restaurants and bars.

And the port is a place for time-intensive urbanising phenomena; from old estates, such as Raval de Sant Felip, Georgetown or the urban extension Tanques del Carme; to more recent examples, including the Urb. Port Mahon, the Urb. Cala Llonga, Son Vilar, Santa Anna and Sol del Este: “*Un paraíso para vivir distintamente*” [A paradise where life is different].

### Factories: energy and production

In a port with a clear tendency towards recreational intensification, it is important to point out its productive industrial past, and its current condition as the only point of entry into the island for solid energy sources. The Port of Mahon is where the industrial genesis took place: the British arsenal on s’Altra Banda and Bloody Island; the first civil industry, *La Industrial Mahonesa*; the *Sociedad Anglo-Española*, *La Maquinista Naval* and the flour factory *La Minerva*. In writing this thesis, we have engaged in an initial foray into industrial archaeology, of which few testimonies remain.



The Gesa thermal power plant deserves a separate chapter. Designed by José Ferragut Pou in 1956, it is a blend of the most radical modernity and critical regionalism, laden with localisms. A relatively brilliant example of architecture blighted, however, by the architecture-less expansion undertaken in 1990. A building which, due its size and position of prominence in the Port of Mahon, is indeed heritage, poised to undergo a clear second energy transition. It is likely the highest free-standing civil building in Menorca.

The debate about whether to replace the thermal plant for non-polluting, renewable sources in the future is highly relevant. This introduces the concept of Memory, testament to an extremely important industrial past. Are we still interested in suggestive yet uncomfortable drawings and photographs, such as a cross-section of the port that might show the church of Sant Francesc on one side and the GESA on the other?

## CONTAINER / CONTEXT AND CONFLICT / TOPOS

### Setting: the urban valley

All of these objects, types, are identified within a global setting: an urban valley, the result of a natural, closed estuary of varying width. There is landscape on both sides, a fact that, though it might seem trivial, does not always occur in all port assemblages or types; it is both singular and poetic: the very water, the dividing line, defines the container, the surmountable void.

### *Scenography and power*

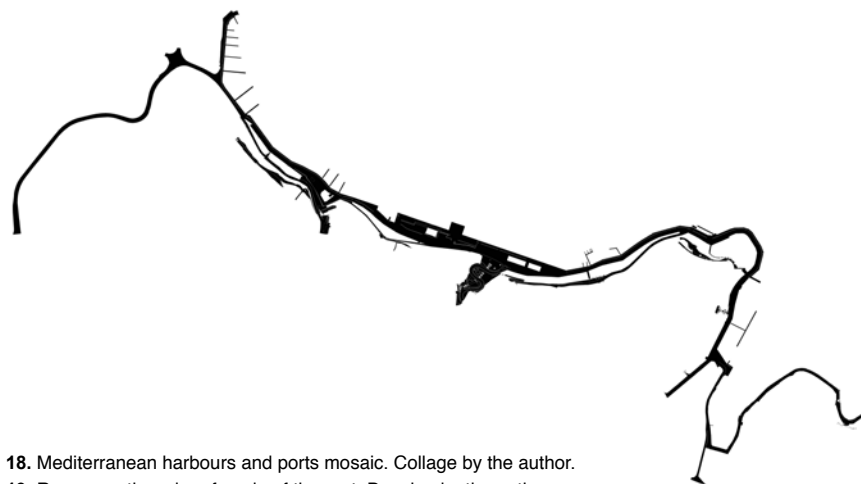
Its condition as a closed valley, with a marked topographical difference on the south bank, makes it a setting that has been portrayed on countless occasions: from engravings to watercolours, from oil paints to photography and, of course, postcards.



16. Port Mahon's paintings mosaic. Collage by the author.



17. The powerness using the harbour as scene. Collage by the author.



18. Mediterranean harbours and ports mosaic. Collage by the author.

19. Ramps on the urban façade of the port. Drawing by the author

A potential for scenographic representation that has never been wasted: Giuseppe Chiesa and Font i Vidal depicted the victories of the French, first, and the Spanish, later, expelling and forcing the British to surrender. Many others, however, have also made use of this port scene: from Isabel II to the Dukes of Montpensier; from Alfonso XII to Kaiser Wilhelm II or Alfonso XIII; from Rainier of Monaco, walking arm in arm with Grace Kelly, to Dictator Franco, who did not underestimate the cinematic potential of the Costa de Ses Voltes, then known as Avenida de la Victoria. Or, more recently, José M. Aznar, José L. Rodríguez Zapatero and Juan Carlos I have also chosen the Port of Mahon as a phot spot during their visits to the island.

A scenographic attribute which necessarily conditions the city. Some representations, such as the British depiction by Basire, the representation by Miguel Barca in his PFC from 1975 or the 1987 General Land-Use Plan have viewed the port in this light. The city above, and the north below, with the map turned upside down: a consummate declaration of intent.

### Urban park and natural park

An urban valley that helps us to understand the city associated with the port as an urban space of maximum urbanity and centrality: an urban park, in the same way that we can understand, albeit it on a different scale, the dominant condition of Central Park in New York; or the recovered Ria, or estuary, in Bilbao. An urban park which has brought about the urban reformulation of the “linear city” of Baixamar, its “coastal ring road”.

At the same time, this urban park must also be regarded as an infrastructural space that is at once a natural organic system: to understand the areas of Binisermenya, S'Hort den Murillo, Els Freus, Repòs del Rei, Es Pouet, the Sant Felip Castle or, why not, the delicate ecosystem of the Vergers de St Joan as the great green

corridors of a port of general interest. The drawings produced as part of the 2006 master's programme *The Large Scale* are very explicit on this essential condition.



## Borders

The tension between the city and the port domain provides the opportunity to address the boundary between the two realities as a space for critical analysis. Mahon is a city of lookouts; it is a city that observes and watches the port. Due to this, the limit, this border, has been the subject of numerous projects: The Passeig de Cornisa, by architects Martorell, Bohigas and Mackay is literally framed within this notion of border. It was funded as part of the Ministry of Public Works' "Urban Edges Programme" in the 1980s.

A limit, the port's legal limit, which excludes elements that are unequivocally linked to the landscape: the thermal power plant, the naval base, perfect islands of the system; such as the cliff face, the port fortresses or the interior of the islets, which do not belong to the port.

A boundary that has often been blurred, which has been the subject of reflection and projects; the boundary that separates the port domain from the city, overflowing it. We are talking about projects such as the Garcés - Soria detail studio for Sa Colàrsega; the intervention on the Costes de La Miranda and Cas General, by architects Serra-Vives-Cartagena; or the Port Use Plan by architects Cantallops-Roca.



20. Comparative drawing of the new lifts in the port of Maó with other well-known ones. Collage by the author.

21. Dock's artifices on time. Drawing by the author.

1890  
2019



22. Artifices mosaic. Collage by the author.

23. Port of Maó on the Mediterranean network. Drawing by the author.

## Slopes

A border that needs to be chiselled, constantly shaped and modified. A border, in addition, sectional, vertical, that the series of slopes have acted upon and which, inserted between the docks and rock, have often been harmed, like the scenographic rock itself, by the contradiction of the border: the Mahon Cliff Consortium as a great paradigm of the contradiction of the border. The great skipper of the port scene, whose members do not include that which benefits most from their maintenance, the dock manager.

## MECHANICAL PARADIGM

Recently, even the requirements of vertical mobility, such as the new elevator, have prompted imaginative formulas to involve the Port Authority in the urban domain –such as the modification of the DEUP's delimitation line, by way of a temporary transfer– and in the maintenance of the scenographic curtain: *"We had to build an elevator to fix a cliff"*, we might conclude. An elevator that, as far as we are concerned, might not solve the mobility problems or, from an architectural standpoint, be the best example of its type.

## Artifices

The Port of Maó is an active infrastructure. It is therefore dynamic, and its border is constantly being altered through regular engineering and logistics works. This thesis has traced and redrawn the evolution over time of its docks, new artifices. And compiled the engineering projects which produced them.

Artifices at the service of traffic and logistics. Despite cutting docks to prevent citizens from docking at the foot of the city, one of the largest and most sheltered natural harbours in the Mediterranean, it has difficulties managing long boats. Resignation or changes to the model ensue: the alternative, strange dockings at the mouth of the port.



### *Enclosures and fortresses*

Close to the other borders and built artifices, of a medical or military nature. The monumental fortress was explained and understood as an artifice for altering the landscape.

### **PROSPECTS: OPPORTUNITY**

The dynamics of the port and networked landscape, and its heritage sites, most of which are now in disuse, are seen as the main vectors of opportunity for the port.

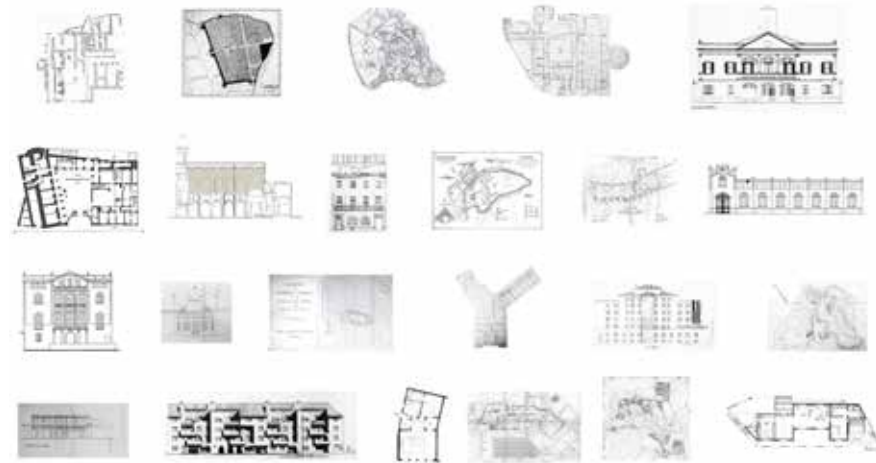
### *Global Network*

Cruise ships are organised around the idea of a network: they link together ports as part of a route in which each stopover is a node in a much larger set. If much of the conflict in Mahon stems from the legacy of a disused landscape and heritage built on a scale much larger than the island's requirements, possible solutions may be derived from understanding the Port of Maó as serving a much broader territory.

The British did this: Mahon was a node in a higher interest. In this regard, for example, one proposal suggests turning the Naval Base into a Faculty of Marine Sciences, taking into account the potential the new facility would have as an attraction, to provide service to the entire Western Mediterranean, in the absence of an equivalent faculty in the Spanish Mediterranean.

### *Local network*

At the same time, the local network is key. This thesis therefore proposes the idea of articulating the port's vast heritage by studying its buildable potential and drawing connections based on the idea of network.



24. The port of Maó as an architectonic and urban kaleidoscope. Collage by the author.



25. Navy Base. Double T building. Photography by the author.



26. Hotel Rocamar. Joan Bagur Truyol collection. Ca. 1955.



27. Housing building in Cales Fonts, Es Castell. Lluís Cantallops, arch. Drawing, Lluís Cantallops Office

### *Disuse. Minimum intervention*

It is crucial that the heritage sites, information regarding which has also been collected, be identified, that interventions be kept to a minimum and that there be redress for expensive interventions that the territory cannot afford. This thesis takes extreme examples in this regard<sup>5</sup>.

## CONCLUSIONS

The research is framed, as we mentioned earlier, within a scenario of critical reflection of a prospective nature; it eludes any specific proposals or projects. The conclusions are therefore summarised below:

### **Kaleidoscope. Spectrum**

The Port of Mahon as a setting for identifying everything that has happened on the island of Menorca over time. Everything is there. Everything is condensed in it. Even traces of Western Mediterranean architecture.

### **Inventory and reuse**

We are convinced that it is necessary to inventory and document the scope of the heritage sites in disuse in the port. If we understand it as a potential catalyst for the island, as well as for Mahon and Es Castell, an exhaustive dimensional and typological analysis of this heritage becomes necessary. The “*Guide to the Use-Disuse of the Port of Mahon*”<sup>6</sup>, a project completed in 2016 as part of the MBArch

<sup>5</sup> The L11 Sud Metro stations, by Garcés - De Seta - Bonet stations; the Palais de Tokyo by Lacaton et Vassal; or, much closer to the port, the surprising recovery of the Cine Victòria, in Mahon, as an art gallery.

<sup>6</sup> Cucalon, Donoso, Padrón, Romero, et al.. *Guía del Uso-Desuso del puerto de Maó. Barcelona: Projecte, Residu i Reciclatge*. Cristina Jover, Josep Lafont, Josep, and Toni Vidal, Professors. MBArch Etsab. 2016.

programme, stands as a novel work that is both useful and revolutionary in this regard.

### Productive port: Beyond tourism, social and environmental balance

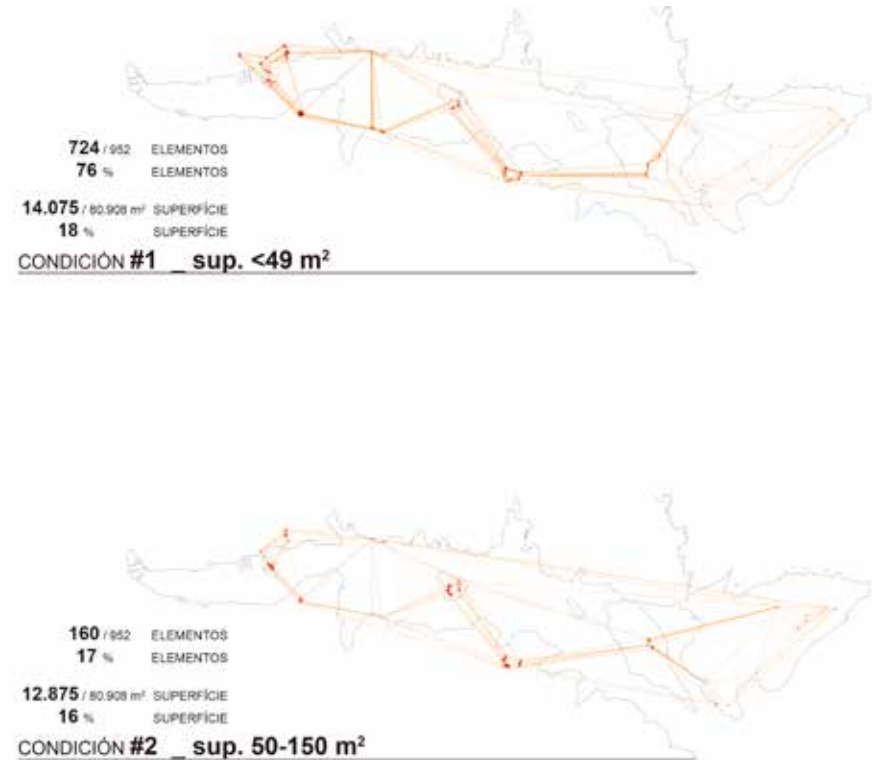
If the Port of Maó is to play a crucial role in the island's social and economic development, we understand that its production model should refrain from revolving exclusively around recreational and nautical services; it is important not to lose sight of the Port of Maó as an industrial port, while understanding its natural condition and demanding social and environmental balance.

### Blue and knowledge economies

Much of this productivity could be derived from what has come to be known in recent times as “blue economies”. Activities, not always possible in other contexts, linked to the sea and its added value. Also, the knowledge industry, in which regard the Port of Maó has hosted several disparate yet successful activities over the course of its history, such as the Illa del Rei International University of Menorca, the Llatzeret School of Public Health or the Clot de La Mola Battery Maritime-Terrestrial Station, is surely another of the most feasible options. Knowledge as a cultural and economic vector.

### More housing; more hotels

People live in the port of Mahón. A curious and not inconsiderable condition of this port of general interest, not always shared in other port realities. The residence, in Maó, has given splendid examples of architecture. Built realities both port and logistics; it all depends on legal, often virtual boundaries. At the same time, José Antonio Coderch showed that the Instituto Social de la Marina provides social housing in the port; the GESA power plant, too.



28. Networks over the port of Mahon. Castellà, Escalante et alter. MBArch 2016



29. The airport linked with the port of Maó. Drawing by the author.

30. Ports of Maó and Ciutadella linked by the Menorcan main road. Drawing by the author

It is suggested to recover the collective memory of the port as a hotel and tourist genesis of the island can help to rethink from the port of Maó a new hotel and tourist model for Menorca, far from the -possibly expired- model of sun and beach. Could the quarters of La Mola, or Marine of the Naval Base, far from their original use, be used as hotels?

### Network port

We talked about the idea of a networked port to make it go beyond its oversized dimension. Globally, and locally. It is also worth understanding the possible shared synergy of the port with the airport. Two connected infrastructures.

### Two ports of an island. Dual system

We must also learn to deal, in a connected manner, with the situation posed by having two ports condemned to understand one other, as is the case of Mahon and Ciutadella: two ports that belong to the same system. What goes to Ciutadella does not go to Maó, and vice versa, with the island's main highway as an essential umbilical cord connecting this infrastructural system. Should we consider the prospect of joint management?

### Limits and management

Three drawings, three criteria, three limits for the port. The first, the port of the Port Authority; the second, quite reasonable –used in the catalogue–, the setting, the port container; the third, the operational and urban units linked to the port. Drawing as a critical tool. This imposes a new idea: the idea of overlap, as opposed to that of a dividing line. Josep Bohigas explains it as follows:

*"[...] The port, the coastal area, is a border area. [...] That relationship, that overlap that can never be defined with a fence, with a line, if not as overlap; that space of relationship between*





31. Three drawings of the port: the administrative port; the port according to the setting criteria; the port of the linked urban entities. Drawing by the author

*the two realities, between two cities, between two owners, two realities that have many economic pressures [...]*<sup>7</sup>

This gives rise to a new idea of management, one based on mutual understanding, on the voluntary transfer of powers in efforts to define a overlapping landscape. Could the figure of the Consortium, of a shared governance body, be valid? The ports of Cincinnati & Northern Kentucky, a land and heritage management tool that spans the Ohio River, overflowing into two American federate States; or the case of La Marina de València, in managing Valencia's urban port, are examples which point towards this new way of understanding port management. Mechanisms which, furthermore, would prevent recurrent pressure overloads on the port manager, sometimes more than debatable: the port does not end with the Port Authority.

### Leadership

Clear leadership is required; one that, beyond the management model, shows a commitment to the port. The precedents from the 1980s, in which the mayor's office led actions which went beyond its

<sup>7</sup> Bohigas, Josep. Radio A Coruña, Cadena Ser. Interview for the Tecendo Litoral Forum. A Coruña. 2018. Llop, Carles, Supervisor.

area of competence: the General Plan by Sabaté-Ferrer-Castiñeira-Serra-Vives, conceived from the port; the project by Garcés - Soria, "port d'hivernada", on port property, largely the mayor's proposal; or Martorell's redrawing of the urban section of the new docks by Fernando Moscardó and Rafael Soler Gayà, engineers from the Administrative Port Commission. A moment of clear leadership, embodied in the efforts of the mayor and architect Borja Carreras-Moysi to ensure that the graphic testimonies of the works of the time focused basically on the port.

### Port city; port landscape

Finally, the aim of this thesis is to convey the idea of a *Port City*. It is impossible to imagine a port without a city, and vice versa; moreover, it is important that we move past the "city-port relationship" paradigm. Mahon would not be the city we know without its port. No connection needs to be drawn, because the port is already part of its logic. All of it comprises the port landscape, a condenser of all kinds of uses around a natural estuary that is the city, infrastructure and port of general interest; and it is in this dimension of full urban and maritime infrastructure that the opportunity of Maó and its port really lies.

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# finalists

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of Lawrence Halprin. The *Take Part* methodology in the  
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**Occupation & City: the proto-urbanism of urban movements in  
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# finalist

## Participation and collective creation in the architecture of Lawrence Halprin. The *Take Part* methodology in the participatory processes of urban project

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Lawrence Halprin (1916-2009) was an American architect who developed a long, fruitful and award-winning architectural and urban body of work. In his design procedures, he was a pioneer in the USA for introducing participatory processes allowing citizens to provide information, reflection, knowledge and proposals in urban designs.

Halprin's early experiments in incorporating citizen participation took place in the 1960s, coinciding with the democratic revision caused by the Free Speech Movement. From that time, participatory processes were assimilated in his *modus operandi*.

Through the *Take Part* workshops, Halprin developed a methodology that allowed a broad consensus in the will of urban citizens. His participatory processes involved ordinary citizens, but also institutions, administrations, businesspeople and officials. The results of the participatory workshops were incorporated into his designs, ensuring the social and political success of the developed outcomes, as well as the professional recognition that was achieved.



1. Cover image taken from the poster:

Anna Halprin and San Francisco Dancers' Workshop

WORKING PEOPLE WORKSHOP – WOMENS WORKSHOP – DANCE AND SELF HEALING – COMMUNITY CREATION AND LIVE TRANSFORMATION

Designed by Charlene Koonce, circa 1977.

Used by Lawrence Halprin as a conceptual illustration in collective workshops.

Image: LHC 014.VI.5E218 Taking Part Workshop (Graphics WS) 1975-1979

2. Lawrence Halprin in his office, 1960. Image: WEINSTEIN, Dave. Tommy Church and his brood. Creators of the 'California School' of Modern Landscape Design. Eichler Network



## Anna and Lawrence Halprin

To understand the work of Lawrence Halprin it is important to know the influence of his wife Anna. Both played a transcendental role in the conceptual evolution of urban planning and performing arts. Their marriage exemplifies a paradigmatic concurrence of Architecture and Dance. This singular crossroads gives us the knowledge of possible alternatives, already proven with success, in the participated construction of the city.

Anna Halprin (Ann Schuman) (1920) is a dancer and Lawrence Halprin was an architect. In 1941 the couple moved to Massachusetts to study at Harvard University where they studied design and architecture with some of the Bauhaus professors who emigrated to the United States, as well as with the landscaper Christopher Tunnard. At Harvard, Anna and Lawrence Halprin soaked up the artistic principles of the Bauhaus where Gropius had taken over the Department of Architecture (1937-1952).

Their friendship with Walter and Ise Gropius and with László Moholy-Nagy imbued them in some interests that they had already developed in the 1920s in Europe, such as the review that they had advanced with their colleagues Oskar Schlemmer and

Farkas Molnár in the relationship between audience and performer. Probably in this common interest lies the origin of Anna's distancing from the classical forms of teaching of modern dance typified in the tradition of Martha Graham and Doris Humphrey. Anna achieved a pioneering transformation of the traditional concept of dance as an artistic manifestation and initiating a new way of occupying space. Anna was one of the forerunners of postmodern dance and American art performance, taking both outside the theater to reach the public space, and also interact with it and its inhabitants.

In 1944 the couple moved to San Francisco. In 1949 Anna founded the Halprin-Lathrop (Dance) School and Lawrence his own office. That year, Lawrence published the article *The Choreography of Gardens* where he explained the need to design gardens that satisfied the kinetic sense, so that they would be,

*Like stage sets for a dance in that they designed to determine the movement of the people in them.* (Halprin 1949, 31)

"During the 1960s, Halprin took on new types of projects in marginal urban locations and began to innovate not only with forms and spaces but in the design process itself. These projects, in which he reaffirmed the role of the landscape architect in the regen-

eration of the American city, achieved vital social and pedestrian spaces (...). In doing so, he reimagined a public realm for American cities that had been forgotten by federal urban renewal programs and abandoned by new suburban developments.” (Meyer 2016, 6)

As Lewis Mumford announced in 1961 talking about the American city, “as soon as the suburban pattern became universal, the virtues that were advertised began to disappear.” (Mumford 1961, 490-491)

In 1963, when Halprin published the book *Cities*, he pointed out that the main purpose of a city is:

*To provide a creative environment for citizens. By creative I mean a city with a lot of diversity which allows a wide freedom of opportunities.* (Halprin, 1973)

On the other hand, Anna, in the sixties began to worry more and more about relationships with the environment, focusing on the affective capacities of the place, as well as the movement of the dancers and their ability to feel. From that moment, her happenings, so called to differentiate them from the performances of Allan Kaprow, had an increasing impact; and artists such as John Cage, Claes Oldenburg or also Kaprow joined her. Of note is the 1964 happening

Papers, performed by Kaprow, Halprin and Ferlinghetti at the University of California at Berkeley. The historiography of contemporary art relate it directly to the content that months later would be claimed in the demonstrations of the Speech Movement.

It is not a simple coincidence that the Free Speech Movement, which demanded the right to public assembly and organization of political activities, commonly cited as the origin of the student protest movements of the 60s and 70s (which germinated in Europe on May 68), it began in 1964 in the Sproul Plaza at Berkeley, designed by Halprin (1960-62) and on whose campus Anna had demonstrated, had danced with her dance students and had made happenings with her performer friends.

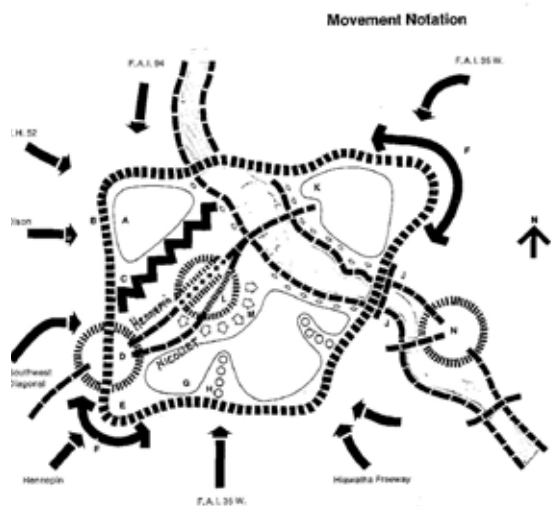
From 1966, interested in activating and involving citizens in the design of their environment, Anna and Lawrence Halprin started the collaborative workshops called *Experiments in Environment*. They were workshops in which they induced a group to learn about the environment through their physical and sensory experimentation. They first involved dancers from Anna Halprin's theater and dance company, then groups of artist and professional friends (related to performing arts and architecture), and finally the collaborative workshops were used to



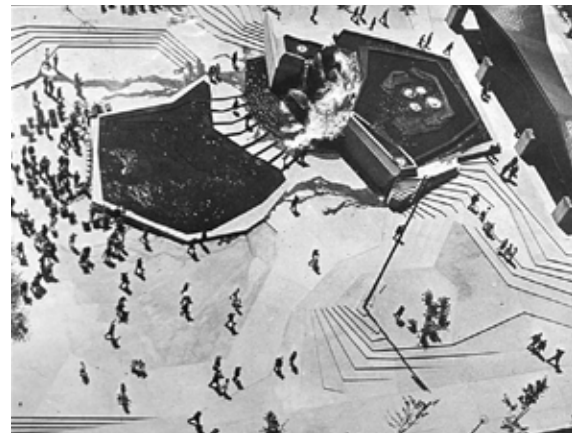
3. Anna Halprin in “The Prophetess”, 1955. Wardrobe designed by Lawrence Halprin. Image: Risling, Edloe. Anna Halprin Digital Archive



4. Protesters carrying the banner of the Free Speech Movement in University Hall, Sproul Plaza, Berkeley, November 1964. Image: Steven Marcus. Courtesy: UC Berkeley, Bancroft Library.



6. Traffic studies for the Nicollet Mall. Drawing: Halprin, Lawrence. 1969. *The RSVP Cycles Creative Processes in the Human Environment*. New York: G. Braziller, 92.



5. Lovejoy Plaza, Portland, Oregon, 1967. "Les Dalles of the Lovejoy". Image: Portland City Archives

produce knowledge generated by the people who participated in their *Take Part* processes. These experiments were the basis of the methodological conceptualization of collective creation in relation to the environment and the *Take Part* methodology in urban planning.

The office of Lawrence Halprin and associates (LH&A), in addition to planning public spaces and advising on urban planning in many American cities, incorporated participatory processes in the development of urban projects in the 1960s and 1970s. "They reinvented the profession and set the stage for 21st century practices in urban planning, led by landscape architects." (TCLF 2016, 39)

In the first urban assignments of the 1960s, the participatory processes started from Halprin's own initiative and bit by bit the urban promoters began to assume and demand them as something intrinsic to the urban process itself.

In a decade in which "most American landscape architects focused their professional attention on the residential market and the amenities to support it (shopping malls, schools, etc.). Lawrence Halprin (1916–2009), M. Paul Friedberg (b. 1931) and Karl Linn (1923–2005) (...) incited reactionary efforts to achieve social continui-

ty (...) through participatory methodologies that emerged from their unique professional training. This training prepared them to refocus the emphasis away from the sterilizing neutrality of "open space" and toward the reinstatement of "public space" as a stage for encounter and exchange. (...) (They) dedicated themselves to the country's densely settled metropolitan areas. By attempting to conserve the experiential richness and social ties of the inherited city as a dynamic stage for public interaction and exchange, their efforts paralleled many of the critical reactionaries who launched a "resistance" against "the assault on urbanism" (White, 1958) at this time." (Hirsch 2014, 173)

"Such reactionaries included Jane Jacobs, William H. Whyte, Lewis Mumford, Richard Sennett, Herbert Gans, Bernard Frieden, journalists Wolf Von Eckardt and Ada Louise Huxtable, Victor Gruen, and so on." (Hirsch 2014, 191) All of them included in the bibliography that Halprin attached in the outstanding work of 1968: *New York, New York: A Study of the Quality, Character, and Meaning of Open Spaces in Urban Design*, (Halprin 1968, 116-117) that he carried out with a multidisciplinary team in which collaborated, among others, the socio-political activist and urban planning theorist, Jane Jacobs, the psychologists George Rand and



Paul Baum, the geographer Tom Thorpe or the anthropologist Edward T. Hall. In this study, it was emphasized the importance of working with a representation of the community affected by the changes produced by a new planning, making it participant of the design of their urban area of interaction. In summary, Anna and Lawrence Halprin were an active part of the movements that managed to change Western society in the turbulent 1960s and 1970s in the USA, improving democracy and quality of life of citizens. With Lawrence's contribution focused on the field of urban planning, it is pertinent to revisit and reference his performance, especially at a time like the present when participatory processes are being widely incorporated into public life and political management of our society.

## Research background

The preliminary documentary consultation phase to initiate this research focused on the publications of and about Lawrence Halprin. From its the study, it was obtained sufficiently information to be able to offer an approximation to the figure of Lawrence Halprin and his modus operandi.

One of the collateral results of this research is the Lawrence Halprin's bibliographic construction, which brings together 131 references in which Halprin signs as author, 104 references from LH&A and 171 references from other authors that focused on Halprin's life and work.

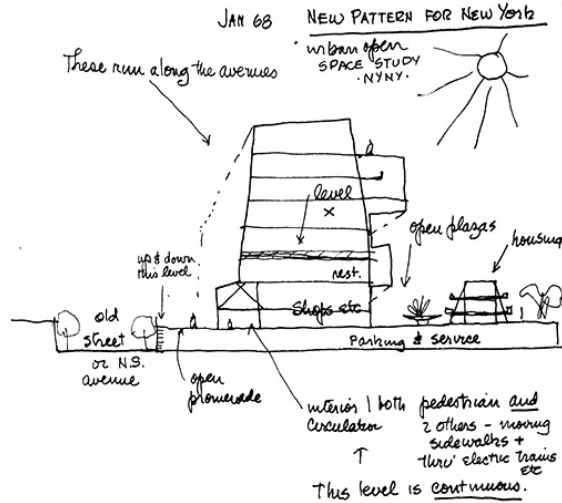
Based on the publications signed by Halprin, it was found that a complete intellectual discourse could be set up. In the publications of other authors, they mainly addressed to Halprin's work as a finished architectural object. Although in many cases, in order to understand the results, there are referred and highlighted the participatory processes, these are not detailed, nor is defined the methodology used to carry them out. Thus, the score that would allow a detailed reconstruction of any of these participatory processes in full cannot be inferred. In summary, it is possible to get a broad idea of what the participatory process meant, there are even two books-manifesto by Halprin



7. General plan of the Seattle Freeway Park. LH&A. Plan: LHC. 014.VI.FI631 Seattle Freeway Park



8. Ira Keller Fountain, Portland, Oregon. Photography: Charles Birnbaum, A.N.D. The Cultural Landscape Foundation



9. Halprin's drawings in his notebook about the NYNY report. January 24, 1968. Drawing: LHC, 014.III.B.020 NB NYNY 74-80 p. 2654



10. Experiments in Environment. Mapping Market Street, San Francisco, July 8, 1966. Image: LHC // Graham Foundation

dedicated to this question, (Halprin 1972 & 1974), but its practical application cannot be understood or developed without introducing a large dose of invention.

### Object, objectives, motives and hypotheses

The main objective of this research is to delve into the detail of the praxis exercised in the participatory *Take Part* processes of Halprin's urban projects to be able to define an application methodology.

The urban results of Halprin's projects have proven brilliant in their broadest sense. From a professional point of view, they have received the highest distinctions that are awarded in the USA. These results have also been exceptionally effective from the point of view of user, who has occupied, owned and used the projects, regenerating urban areas that had fallen into recession. In addition, these have widely responded to the expectations of clients who commissioned hundreds of projects backed by the previous successes.

We know of the experience of the LH&A office in organizing participatory processes to provide information, reflection and knowledge, both to the population involved in urban renewal and to the architecture studio in charge of designing that renewal. Based

on the analysis of the historical and fruitful experience of Lawrence Halprin in this field, a starting hypothesis is formulated in the belief of the need for participatory processes for the better construction of society and in particular of the city. Therefore, the object of study of this research are the participatory processes that marked the definition of the *Take Part* method. It is interesting to know the process and the applicable methodology from project thinking to its later praxis.

From its original conception, the work assumes the need for evolution in parallel with society. This is best detected in urban regeneration plans and in the design of public space. Halprin already enunciated this in the inauguration speech of the Nicollet Mall in Minneapolis in 1962:

*(...) the success of the design could not stand without continually refreshing the area because change is inevitable.* (Fredrickson 2011, 288)

We could qualify its architecture as circumstantial and adaptive, considering these adjectives as excellent qualifications for a social architecture.

*I have a responsibility (...) Because what I have to do determines how people live and how they relate to various other people, how they relate to social problems, and how they relate to nature itself.* (Halprin 2008)

Thus, without neglecting the possibility of a traditional analysis of the architectural object and an appreciation of its timeless values, which are also exceptionally significant, this research focuses on the process, with the intention of understanding and assuming today a design training tool that involves the citizens and their wishes in city planning. From this point, a second hypothesis arises: the possibility of contemporary application of these processes and techniques to try to develop a better qualified urban planning, better adapted to society.

### Other materials

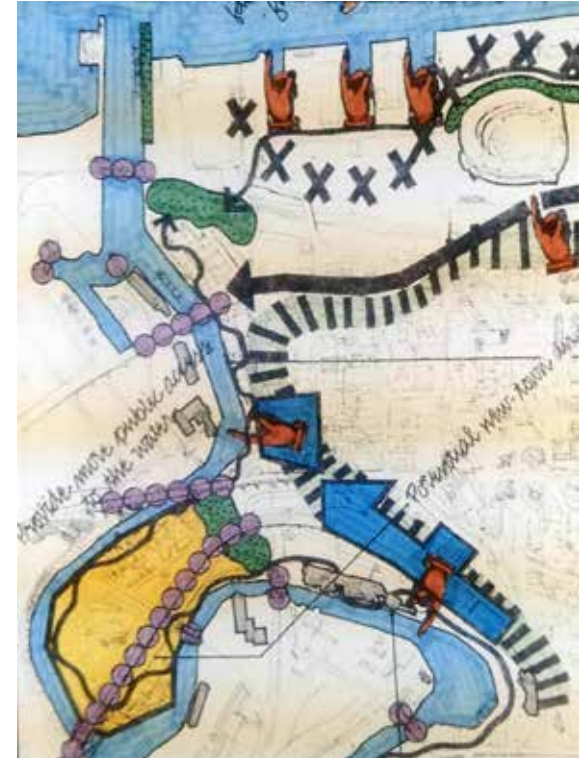
During and after completing the Thesis, two complementary lines have been developed in parallel to this research: dissemination and praxis. In terms of dissemination, apart from some papers, it is worth highlighting the book: *La Participación en la construcción de la ciudad* (Blancafort 2016a) that received the Research Publication Award at the XIV BEAU (2018). On the other hand, an experimentation is being developed that serves to test the praxis of what has been studied, to feed back the theoretical discourse and to nourish the discussion with an assisted critique from experience. This practice is carried out through research and social transfer projects from the UPCT. In

this line, several processes of participated urban design are being developed. As an example of the different scales of practical application, it is worth mentioning the project for Plaza de la Merced, Murcia, the regeneration of San Roque neighborhood, Molina de Segura or the planning process for the Advancement of the revision of the PGOU of Cartagena, among others.

### Case studies for the definition of the method

The central body of this research describes in detail ten study cases that were paradigmatic to specify the *Take Part* method. To do this, it was consulted and analyzed the original documentation produced by Halprin and deposited in the Architectural Archives of the University of Pennsylvania, Philadelphia, USA. In order to carry out the detailed definition of the method, it was reviewed all documentation referred to the study cases. Some cases were still projects for testing and approaching to the *Take Part* Process method and others were already consolidation projects of the method that Halprin would apply from that moment on.

The Thesis provides a large amount of unpublished documentation that allows to dissect in detail the activities carried out in the different *Take Part* workshops, and thereby



12. Downtown Cleveland Diagnostic Drawing, LH&A.  
Image: LHC, 014.VI.BA727 Cleveland



11. Morningside Park workshop, Harlem, New York, 1970.  
Image: LHC, 014.VI.DG208





13. Participants of the *Take Part* Cleveland Workshop, 1973, on an excursion through the city center. Image: LHC, 014.VI.BA527 Cleveland



14. Image of the *Take Part* workshop held in Yountville on October 1973. Presentation of the work done in group. Image: LHC. 014.VI.HC-324

discover the precise methodology used.

Since the interest is in the details, which are difficult to summarize, this synthesis will not include an accurate description of any of these case studies, which occupy 310 pages of the Thesis, and in which there are arranged conceptually and chronologically 547 written documents, 176 contact sheets, 1,447 slides and 116 original LH&A drawings related to these projects.<sup>1</sup>

To get an idea of the magnitude of Halprin's work, there will be provided images of different types of documentation produced by Halprin, be included the description of the defined method, be added some thoughts produced in the discussion that generated the research, and there will be provided the main conclusions of this research.

### Methodological synthesis of *Take part* process

#### Conceptual summary

The *Take Part* were processes in which citizens participated together with representatives of institutions and administrations, businessmen and officials, to promote consensus on urban ideas that would determine the objectives of the technical project that would later define them.

<sup>1</sup> An open access example of one of these case studies in Yountville is published in journal *Kultur*. (Blancafort 2016b)

They could be used to focus on ideas related to urban planning or to specify small-scale urban projects in which the definition of architectural detail was searched. Among the first cases, stands out the *Take Part* processes used to specify the main lines of the General Urban Plans of Yountville, Everett or Cleveland. The latter cases, include the *Take Part* processes organized to redesign the Market Street in Wilmington or the Main Street Mall in Charlottesville.

As it could be verified in the different case studies, the *Take Part* processes followed a similar script wherever they were applied. When an entity contacted Halprin's office to carry out an urban design or planning, the gears of participation were set in motion. It meant that, in parallel and simultaneously to the office work, workshops were organized so that the community participated in the development of the planning that affected it. Meanwhile, the office was fed and influenced by the results obtained in these collective workshops for the exchange and definition of ideas, prior to the completion of the final technical work.

Citizen participation was carried out in collusion with the entity convening the order. In the beginning, LH&A offered the possibility of participation as an improvement in the urban planning of the city (Fort Worth, Se-



attle, Yountville, Everett). Later, the different administrations contacted LH&A, knowing the benefits of being able to address urban planning from citizen participation (Charlottesville, Minneapolis, San Francisco, New York or Washington, among many others).

From the analysis of different practical cases carried out by LH&A office, a work methodology can be defined. The *Take Part* processes were developed in four consecutive phases. The duration of each one could be changed, depending on the project being tackled. The four phases were:

- Selection of participants
- Recognition of the environment.
- Analysis and diagnosis of the environment.
- Proposals

### PHASE 1. Selection of participants

They looked for citizens who could represent their community in a solvent and committed way. The intention was to establish sociological quotas for wide, diverse and representative participation. The selection was made among members of neighborhood, cultural and civic associations, economic, political, cultural or media power groups, and ordinary citizens (mainly neighbors of the site where the work was going to be developed).

Paul Baum, psychologist and director of the San Francisco Institute for Gestalt Psychology, was one of Halprin's regular collaborators at this stage of the process.

### PHASE 2. Recognition of the environment

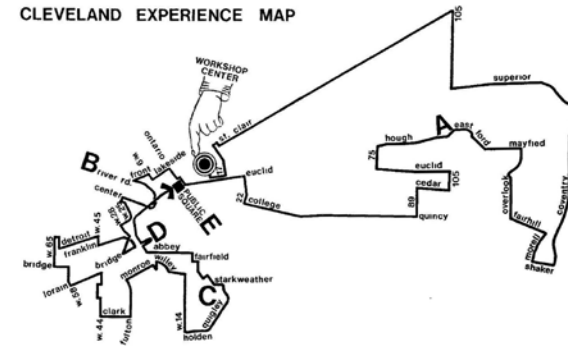
In order to initiate the active participation of citizens in the process, urban mapping workshops were held. These workshops had two basic objectives:

- To become aware of the city
- To obtain a common base of experience among the diversity of participants.

It was given to each participant a "City Map" with a route and a series of activities to be carried out ("Master Score"). The maps that were given became a guide which helped them to observe, visit and interact with different spaces of the city.

With the "Awareness Walk", participants became aware of the city's spatial experience, about well-known places and new discoveries. This was an activity in which all citizens were socially, culturally and economically equated, in order to have a common point of departure. None of the participants' professional, social or economic categories were distinguished. The basis of reflection was the vital experience perceived in these walks, eliminating a differing value of contri-

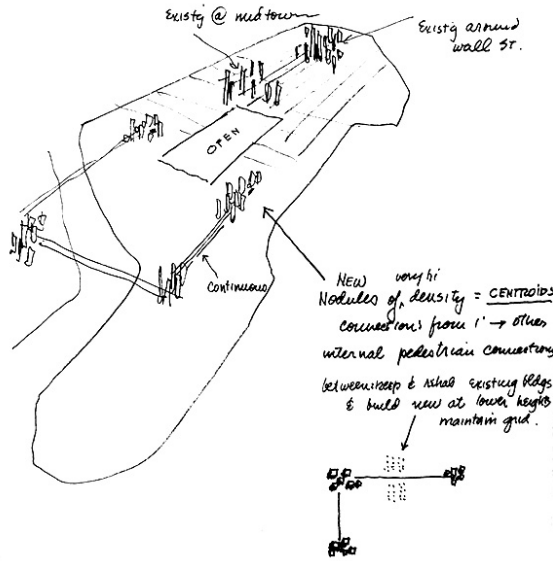
CLEVELAND EXPERIENCE MAP



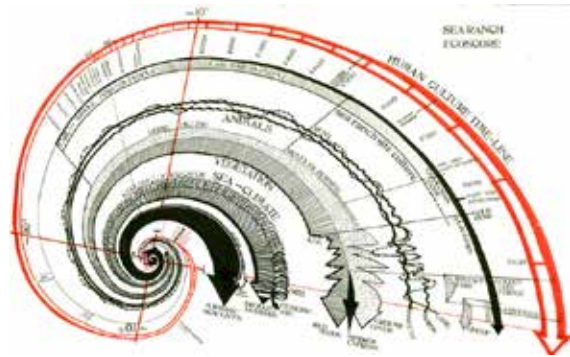
15. Map of the Cleveland Bus Tour score. Image: HALPRIN, Lawrence, and BURNS, Jim. *Taking Part: A Workshop Approach to Collective Creativity*. Cambridge: MIT Press, 1974, p. 234.



16. Experiments in Environment. Discussion about Drifwood City, Sea Ranch, July 5, 1966. Image: LHC // Graham Foundation



18. Halprin's drawing for the NYNY report. January 24, 1968. Drawing: LHC, 014.III.B.020 NB NYNY 74-80 p. 265



17. Sea Ranch Ecoscore. Illustrating the impact of man on the Sea Ranch land from a Geological perspective. Drawing: Halprin, Lawrence. 1969. *The RSVP Cycles Creative Processes in the Human Environment*. New York: G. Braziller, 122-123.

tribution due to status, and considering them all equally valid in order to diagnose and make proposals from the collected knowledge.

*The reason for doing Awareness Walks, is to build a common language of experience.* (Halprin 1999, 44)

### PHASE 3. Analysis and diagnosis of the environment

In the third phase, different types of exercises were developed in groups of 5 to 12 people,. They focused on analyzing and diagnosing the environment under study. SWOT analysis was carried out in relation to the reason for the work, developing the intrinsic characteristics of the place (Strengths and Weaknesses) and the exogenous characteristics (Opportunities and Threats).

### PHASE 4. Proposals

Finally, there were detected points of relevance and proposed ideas of evolution and improvement. The workshops were completed after each group had presented their proposals to the rest of the members, and a meeting was held with all the participants. The workshop closed with a summary by Lawrence Halprin about everything that had happened during the days that the workshop had lasted, describing the consensus he had detected. This was transferred in the form of

a report to the client and, conceptually, into the design figure reason for the workshop.

### Discussion

After the exposure and analysis of the case studies and the methodology, in the Discussion chapter the results obtained are pondered and new perspectives are pointed out. Some peculiar data are emphasized, a critique from a contemporary praxis of the processes studied is contextualized to open application ways in today's society, new research paths are proposed and some of the conclusions with which the Thesis closes are glimpsed.

The discussion revolves around four points:

- Conceptual influences on the *Take Part* process.

Among others, there are reviewed the influences of the avant-garde art of the 60s, the Gestalt or the Speech Movement.

- Social foundations in the *Take Part* process and its contemporary interpretation.

It is made a review of citizen participation, of historical parallels between USA in the 1960s and Spain today, and of the legal framework.<sup>2</sup>

- Procedural nuances in the *Take Part* workshops.

<sup>2</sup> This section of the Discussion was published in the magazine *Architecture, City and Environment* (Blancafort 2015).

Criticism of Halprin's projects is referenced and procedural issues such as the selection of participants, the sense of belonging or the economic costs of participation are clarified.

- The role of the architect.

This last section of the discussion focuses on a review of the contemporary role of the architect in participatory processes.

These themes are developed in parallel to the central theme and serve both to fill gaps in the exposition of Halprin's thought described in the body of the Thesis and to build bridges with our society; raising questions about the applied methodology and its possible contemporary translation.

As a sample, it is attached the text developed in one of the subtopics dealing with the role of the architect.

### Architect: director-guide-shaman

Either the historiography and the scientific research consulted have not paid attention to the failures (which by statistics it seems that there should be) or, as pointed out in some articles, Lawrence Halprin knew how to lead the participants so well that he managed to make them pay attention to issues that everyone could agree on. There is some specialist who suggests that the re-

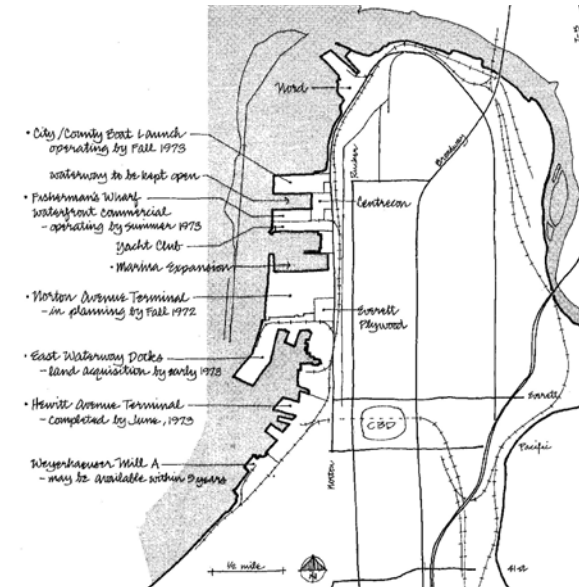
sults of the workshops perfectly responded to Halprin's preconceived design interests, (Hirsch 2012) which he knew how to disseminate and instill among the participants as if they were his own.

*The quality of the resultant experience depends in large measure on the ability of the artist to inspire and lead to peak experiences.* (Halprin 1969, 182)

Some critical writings directly doubt whether it is seduction or manipulation. In this sense, the reflections of Laurie Olin (Olin 2012) (in 2011 he obtained the ASLA medal) about his participation in a *Take Part* process are very timely. He describes the ability of the participants to make decisions and draw their own conclusions, and the ability of Lawrence Halprin to lead the participants towards his interests.

The basic technique that is at the center of this participatory approach is the so-called situational or pragmatic theory of knowledge, that is, learning derived from experience. This differs from the usual teaching and instruction.

Alison B. Hirsch notes (Hirsch 2012) that philosopher John Dewey served as a source of inspiration for Anna and Lawrence Halprin. The emphasis on situational learning is interesting in the case of *Take Part*, as it im-

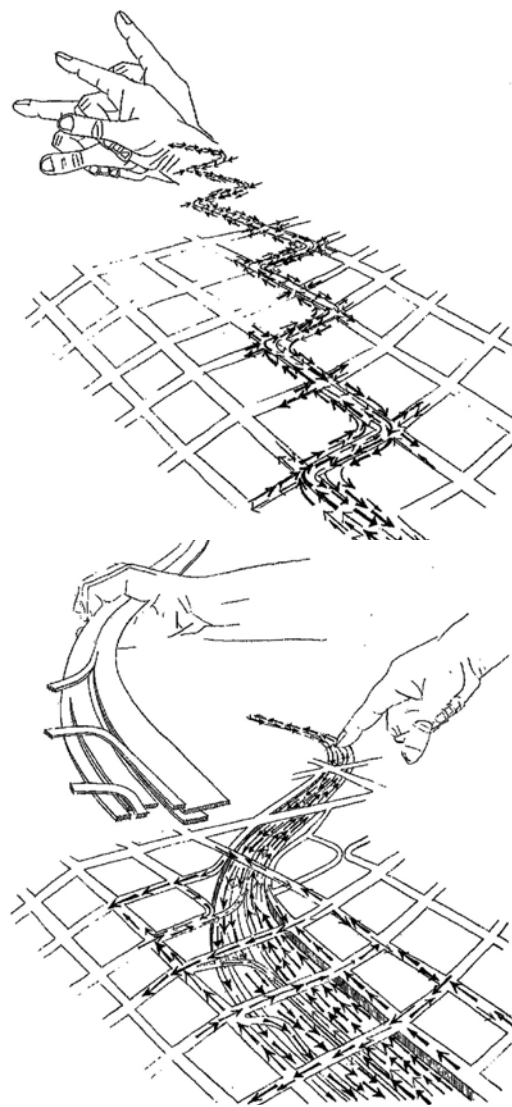


20. Ongoing projects for the Port of Everett, 1970. Drawing: Lawrence Halprin. 1978. *Process 4*, Tokyo: Process Architecture, 204.



19. Image of the *Take Part* workshop held in Yountville on October 1973. Image: LHC. 014.VI.HC-329





21. Conceptual drawings for Freeway Park. LH&A. circa 1971. Images: Fig 3.61 LHC. 014.VI.FI633-635 Freeway Park

plies that the role of the workshop leaders is to guide the participants to discover or learn what the leaders had predetermined. Herein lies the unresolved tension between facilitation and manipulation. The question is to know where the equilibrium point is located, between what Halprin shows and designs to make the context intelligible to those who do not master the matter, and what goes beyond this intention to lead towards the design preconceived. How to conduct a process to induce without abduce?

*One of the gravest dangers that we experience is the danger of becoming goal-oriented. (...) There is a vast difference between being idealistic, which is life-oriented and process-oriented, and utopian, which implies a finite and formal goal. In that sense scores are non-utopian.* (Halprin 1969, 4)

In any case, Lawrence Halprin treasured a progressive approach to the common good and a vision of the environment linked to nature. This approach was transmitted in the way of addressing the problems to be solved in *Take Part* processes. In fact, these collaborative participatory processes helped to open the eyes and minds of people with particular and reductionist interests to lead them to greater social commitment.

*Design, particularly environmental design, has a profound responsibility. It is, in a sense, the bearer of the cultural value system of a community. (...) It deals with cultural issues, with context, with lifestyle, with social and economic issues; it has profound ecological ramifications and influences on the future of the planet; it deals with the whole community as well as the individual; it is contributing to a human ecology and, in that sense, it must be multi-sensory and holistic.* (Halprin 1989, 62)

From the observation of a community in collective reflection, someone sharp can extract clues that enrich the design process. But it seems that often urban design has moved away from the reality of the environment and the people who have to inhabit it.

*The designs are profoundly phony, Disneylandish structures and landscapes without meaning, or profundity, or sense of value. They are full of sound and fury, but signify nothing socially relevant.* (Halprin 1989, 60)

And they are not only self-absorbed but they become the distracting excuse for speculation.

*Everywhere developers are hiring architects and landscape architects to authenticate their deals by making*



*buildings and open spaces which, like advertisements, call attention to the project. It has become a form of corporate pimping, if you will. It leaves the architect to serve out his role as what Philip Johnson calls “a design whore.”* (Halprin 1989, 60)

“The technocratic urban practice is discredited, its public dimension has been marked by the prevalence of real estate speculation and the objective of the common good has been contaminated by the demands of commercialism.” (Montaner 2015, 211)

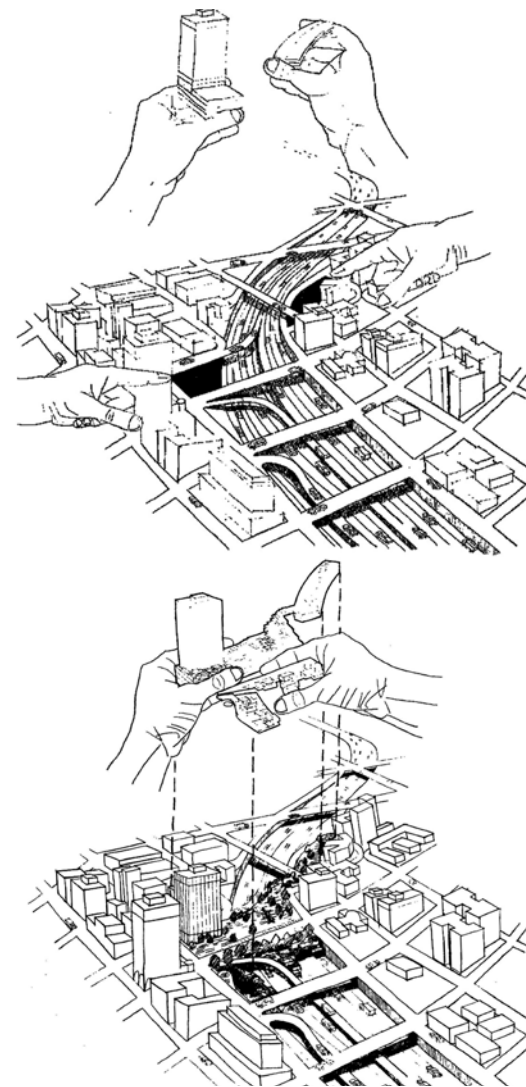
Halprin’s statements are directly linked to the contemporary analysis made by Josep Maria Montaner and Zaida Muxí of the training and role of the architect. “What we call the crisis of profession is a consequence of the imbalances between culture and training of the architect, and what the neoliberal society demands of them (...). The great current challenge is to train university students to strengthen the democratic and fairer societies of the 21st century.” (Montaner 2015)

To this crisis of values is also added that pressure groups close to power and with influence in decision-making on the city can focus almost exclusively on economic profit and speculation.

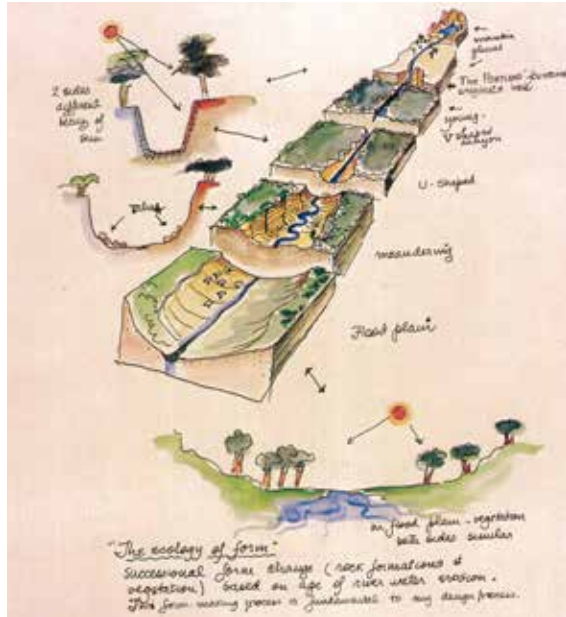
*The new ruling class in the development of communities has been those who utilize land as a commodity for economic gain, the new entrepreneurs. These are the new breed of land-speculator developers who are the real architect-planner “scorers” of our environment. On the average they are venal, shortsighted, and their inputs into our community scores have resulted in disaster throughout America. They are largely responsible for the disintegration of the physical environment of our ghettos, for the appalling ugliness of urban and suburban most of our cities; interested only in the short-term profit motive. It is high time we demand to learn whether their decisions are the most valid ones for community action to base itself on.* (Halprin 1969, 175)

This perversion in the construction of city, so far removed from the common good, requires a paradigm shift in the figure of the politician-manager and the architect. In our specific field the question is to find the precise position of this technical and professional figure.

Halprin transmits in all his writings that the main conditioning factor to carry out a good urban design is knowing how to do a good analysis and prospective of the environment



22. Conceptual drawings for Freeway Park. LH&A. circa 1971. Images: Fig 3.61 LHC. 014.VI.FI633-635 Freeway Park



23. The Ecology of form. Conceptual sketch of the inspiring origin of the Portland Open-Space Sequence. Drawing: Lawrence Halprin on Burns, Jim. 1981. *Sketchbooks of Lawrence Halprin*. Tokyo: Process Architecture, 62.



24. Participatory workshop in Tulsa, Oklahoma, circa 1970. Image: LHC, 014.VI.47G702-Tulsa Mall WS

to be designed. Even if a participatory process is not absolutely indispensable for a good design, if society, in its expression of freedom and executing politics, has the need per se to participate in decision-making, then the architect, in addition to the technical transcription of communal ideas, has to guide, show and illuminate the possibilities and problems that surround the subject of work and that involve everyone, recovering the shamanic function; without forgetting that Architecture is always political.

*The role of the landscape designer, can be similar to the role of a Shaman who, in the Dutch teacher Beuy's words, "can transform base materials into mystical touchstones."* (Halprin 1989, 62)

We would close the discourse by returning to the artistic explorations of the avant-garde of the 60s in which the artist helped the participating groups to recognize the environment and express their will.

*He is no longer the lone hero figure, but rather a guide working to evoke the art within all of us.* (Halprin, Anna 1968, 164)

*What happens is a mutual interdependence between artist-planner and audience in which each has his own role to play and both together form a work beyond the capacity of each individually.*

*In helping to work within the planning process, the more the audience brings to the process, the more both the project and the people themselves benefit from this participation. (...) What we are describing here is a symbiotic rather than a parasitic relationship.*

*For the artist-planner this attitude and this approach is as demanding as for the audience. It implies that he is a "leader-member" of a team. Though more technically competent, his competence should enable him to guide, to show the consequences of actions, to inspire, rather than to decide by himself.* (Halprin 1969, 182)

*Workshops for me are a way to reveal deep seated needs and desires about people's lives. When these are revealed they then need to go on and creatively accomplish a way to execute what people desire to have done.* (Halprin 1999, 43)

What characterized and made Lawrence Halprin's projects exceptional was empathy with people, with the place and with the problem to be solved. This was achieved through participatory processes.

According to political theorist Jon Nixon, "To address the needs of the other—on the oth-

er's terms—is to open up the possibility for human growth and development, which in turn opens up the possibility of mutuality and reciprocity. That is the premise upon which genuine friendships and strong democracies are based.” (Nixon 2015, 128)

Reviewing the historical comparison that Ethel Baraona points out. “Practices of the 1960s and 1970s were built around the feeling of a revolutionary potential, with the confidence that it was possible to secure a better future together; today, (...) practices are oriented toward a better present, trying to catalyze some change here and now. In the past, the question of the individual was accompanied by the struggles for freedom (of speech, of thought, of information, and so on), hence plurality was undermined almost by necessity; nowadays, individualization is the maximum expression of neoliberalism, and this prompts the need to recover the sense of collectivity.” (Baraona 2017, 162)

In this sense, as Hirsch notes, (Hirsch 2012) the *Take Part* is a unique global process, which not only offers opportunities for community building and development, but for action. It is an exemplary attempt at integrating participation in the creative process, as a generative and transformative tool that enriches the design challenge. In addition,

it provides a methodology that achieves physical interventions that are built from the bottom up and from the top down, uniting social justice with quality design.

## Conclusions

In the doctoral Thesis, the conclusions of the research were arranged in five topics that dealt with particular aspects of the object of study. Including from the focus on concrete and pragmatic facets to the conceptual definition:

- Conclusions on the documentation of the Lawrence Halprin Collection.
- Conclusions on the bibliography of, and about, Lawrence Halprin and LH&A.
- Conclusions on the method.
- Conclusions on actors.
- Conclusions on the process.

In this synthesis are attached those conclusions referring to the last three points. (The conclusions on the method have been previously noted in the section: Methodological synthesis of the *Take Part* process.)

## Conclusions on actors

The determining factors in the outcome of participatory processes fall directly on the actors involved: citizens, politicians and technicians.

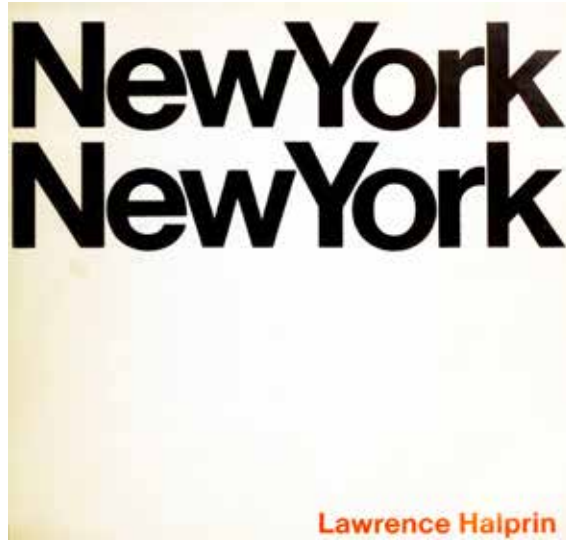


25. Urban Plan for Downtown Cleveland. Conceptual sketch. Image: LHC, 014.VI.BA516 Cleveland

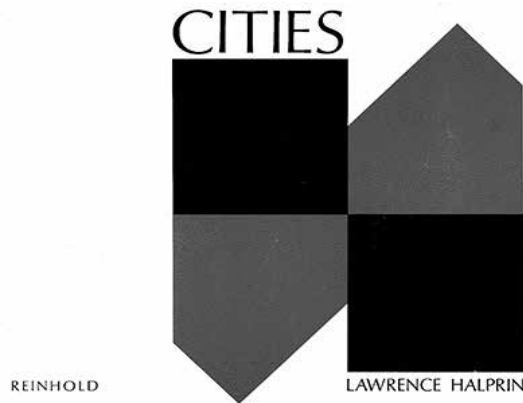


26. Score walk for the Take Part Charlottesville workshop, 1973. Image: LHC 014.I.A.3831 Walking Score





27. Book cover: Halprin, Lawrence and Associates. 1968. *New York, New York: A Study of the Quality, Character, and Meaning of Open Space in Urban Design*. Chapman Press.



28. Book cover: Cities. Halprin, Lawrence. 1963. *Cities*. New York: Reinhold Pub. Co.

Citizens: The sample of society represented by the participants is determinant in a participatory process.

The greater the representative spectrum of society, the greater the possibility of a process concluding in proposals that promote the common good. It is also necessary, and this was the main objective of the previous interviews, that LH&A relay to the participants, their capacity for commitment and involvement with the workshop. The representation of the greatest number of situations and possible sensibilities is qualitative (if possible, they should all be represented) and not only quantitatively or by percentage.

Any participatory process that lacks broad and solvent social representation, selected with transparency, will not be a reliable indicator. Referring to Arnstein's Ladder of Citizen Participation, (Arnstein 1969, 217) it would amount to "No-participation" (Manipulation or Therapy), or at best, Tokenism.

#### **Politicians: Political positioning in relation to the participatory process is determinant**

Participation is a political action and in order to be legitimate, the objectives must be explained, and they must be known and shared by all the actors. The importance is not so much in the mentality or type of political party under whose mandate the collab-

orative process occurs, as in the trust and willingness that is offered and marks the process of participation.

When politics focuses on the tool of participation instead of its goal, the *raison d'être* of citizen participation becomes a social commodity. This is what is called the stages of manipulation or therapy, according to Arnstein's classification.

Citizen participation is synonymous to jubilation in contemporary democratic societies, but poorly applied, it generates frustration in society, and a greater distancing from the government. It should be applied in the best possible way, using the funds necessary to properly implement it and achieve the aims for which it was generated.

#### **Technicians**

In this section, it is necessary to differentiate between the technicians who direct the process, and the institutional technicians who must allow and assume responsibility for it.

In a contemporary review of the application of Halprin's methodology in Spain, it has been seen that a decisive factor for turning the conclusions of the participatory processes into reality is the action of officials. The role of the municipal technician in Spain is different from that of the USA, and in the case studies analyzed, the task of these techni-



cians has not been particularly emphasized. The point here, is that practice shows that Spanish officials can be reactionary, and in turn, decisive in blocking projects that have the necessary social and political support. Therefore, in Spanish urban practice, the capacity and willingness of municipal technicians to act is a very important factor to keep in mind. In many cases, a previous process of education and divulgation of the possibilities of the process will be necessary in order to achieve good results.

In any case, the most determinant actor in obtaining good project results from the process is the professional who directs it. This person should be able to:

- Analyze the issue to be addressed.
- Propose a participatory workshop to address this issue.
- Facilitate collective creation for diagnosis and collective purposeful creation, being aware that the key term is “facilitating”, ie, trying to contribute all the data, but without influencing the responses, or the people who evaluate problems and suggest solutions.
- Interpret the knowledge generated in the participatory process.
- Technically translate this knowledge.
- Resolve and adequately respond to the needs which arise.

Considering that the ideas which have arisen in the participatory process are adequate, having taken into account the human factors involved, their technical materialization ultimately depends on the quality of the designer. Therefore, a good result cannot be guaranteed if a good professional is not guaranteed. Participation is a necessary condition, but not sufficient, to ensure a good urban design.

In achieving a design based on participatory construction, the professional who directs the process should:

- Be able to extract ideas and suggestions that benefit society from the group of individuals who have participated in the collaborative processes. That these ideas and suggestions be more or less consensual, will affect the capacity for social assimilation, not the quality of the proposal itself.
- Be able to carry out these ideas professionally with solvency and quality.

None of the above conditions are easy to achieve. The appropriate professional to conduct a participative process of diagnosis and make a proposal related to the construction of the city is the architect. His/her interdisciplinary work and the extensive competences that he/she val-

ues favor the ability to interpret and design the materialization of the collective's wishes in the construction of the city. In the interpretation of the social and physical environment, the particular vision of technicians from other disciplines, such as geography, anthropology, psychology, economics, history or archeology can enrich this process. These complement in specific specialized aspects, but the design of the habitat of cities is a specific competence of architect.

It is advisable that the relationship between the ideas and propositions of the participatory processes and the design processes of the architect take place simultaneously from the outset. In order for the participatory process to be effective, this must occur at the beginning of the project, not later. Early involvement is the most effective in bringing out certain issues that will later be addressed in the project or design.

### **Conclusions on the process**

#### **Participation is an inherently positive action**

Collective participation in urban planning processes is, from the political point of view, an inherently positive action; referring to the original Greek meaning, “πολιτικός” politikós, ie. civil, concerning the management of the city and citizen's affairs.

This participation serves to listen to and understand the wishes and needs of the citizen. Not only the ones that belong to political pressure groups, close to the power of political decision making, but to any individual in society. The participation understood in the *Take Part* processes proposed by Lawrence Halprin reaches the highest levels of Arnstein's Ladder of Citizen Participation, that is to say, “Citizen Power” is achieved. This means recognizing the presence and the role of the citizen in decisions that affect city planning as a starting point to the projective process of public space and urban programs. Society passes from acting in an advisory stage to reaching a propositional stage.

#### **Participation is an effective methodology for the urban project**

The participatory processes in which Halprin was involved when developing his architectural and urban designs were not only politically positive but also exceptional in their urban material resolution.

The exceptionality of Halprin's work derives from the method applied in the *Take Part* workshops to obtain relevant information from the participants and from its later interpretation and subsequent translation to the project. In this way, communities felt better

represented and more closely identified with the final result of the design.

The methodology used by Halprin remains valid, and when revised, it can be applied to contemporary participatory processes for the construction of the city. Instead of offering a fait accompli policy, a policy of ideas, desires and aspirations posed by society can be developed as the origin of future urban design.

**Participatory processes favor the recognition of the outcome by society**, even before designs are implemented.

The participation of a representative and transversal group of society causes the creative feeling in the attainment of the definition of the urban form to become a feeling of identity and belonging to the new proposal; facilitating the understanding and acceptance of the decisions that the Administration can adopt.

The participatory processes involve expectations that extend the notion of design as a disciplinary fact, since they imply citizen identification and appropriation with the future design, prior to its formalization.

**The participatory workshop is an instrument of civic creation**

Everyone cooperates in one way or another in proposals for collective creation aimed at rethinking the city. No matter the technique

that dominates, anyone is able to express something and contribute to the group. It can be a poem, a drawing, a reflection, a joke, a collage, a composition, a grievance, all options are positive and enriching.

**The participatory workshop is a seed for coexistence and understanding**

Mixing people from different backgrounds and interests and encouraging them to create together, establishes empathy that helps to understand the other. Power roles are forgotten, no one commands or imposes over another. The group is balanced and it is not a matter of someone winning and another losing. Instead, shared listening helps to create consensus in which the community always wins.

**Citizen participation has an additional initial cost, but overall it is more economical and efficient**

Citizen participation in processes of city construction has an additional initial cost in reference to the traditional way of projecting the city in contemporary democratic societies. To the initial cost of hiring a technical team to work out an urban plan or urban design, the cost of participation should be added. This is the complementary contract given to a technical team (it can be the same technical team that later designs), which will

prepare, analyze and obtain conclusions from the participatory processes and be in charge of the necessary production to carry them to term. The idea of the initial cost is emphasized, because in the lump sum, the results of participatory processes tend to be more economical than processes that do not use citizen participation, since they better respond to the common good.

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# finalist

## Occupation & City: the proto-urbanism of urban movements in central São Paulo

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This dissertation investigates the interaction between occupations and the city. On the basis of immersive fieldwork in São Paulo, the work explores whether and how urban movements prefigure a particular form of urbanism by constructing temporary housing solutions in the vacant architecture of the central city. This way, the study aims to fill a gap in the knowledge of urbanism's intricate entanglement with urban movements. In three major chapters, it cuts across spatial and temporal scales, ranging from the city's territorial and millennial occupation of the landscape to the microscopic and fugitive inhabitation of occupied dwelling spaces.

The introductory chapter 'X' presents the remarkable biography of the late Wilton Paes building in downtown São Paulo. The chronicle recounts how the illustrious skyscraper changed over the course of half a century from an epitome of modernist architecture and urban prosperity into the continent's most catastrophic building occupa-

1. The Wilton Paes de Almeida occupation in 2016, two years before the iconic building busted into flames. Photograph by author.





tion. The exceptional architectural history poignantly introduces the major research questions undergirding this research: how are occupations and the city interrelated? And what does this imply about the interaction between urban movements and urbanism as they both pursue social justice?

To reflect on the historical roots of occupation practices in São Paulo, the first chapter 'L Conurbation' re-conceptualizes the megacity as a massive occupation of the natural landscape. This way, the chapter anchors occupations of supposed 'vacancy' as a prototypical Latin American urbanism. Special focus lies on the urban anatomy and magnitude of the city's iconic center. On the basis of this spatial memoir, grounded theoretical considerations related to the intertwining of urban movements, urbanism and social justice are incrementally introduced.

The second chapter 'M Components' looks into two specific urban sites nested within São Paulo's central area. Bixiga is discussed as a notoriously heterotopic urban quarter, by and large shaped by popular movements combating colonial and post-colonial instances of exclusion. Then, on its turn centrally located in Bixiga, the building block of Teatro Oficina invites to examine in detail the intricate ways in which

2. Downtown São Paulo. Photograph by author.





occupation practices often interweave social and artistic movements with discourses and practices of the modernist movement in architecture and urbanism. Together, these components offer insight in the particular urbanism that germinate from grassroots movements when they engage in struggles for enduring and systemic urban transformation.

The third chapter 'S Constellations' zooms in further to inspect unique occupations in downtown São Paulo. The chapter sets out by narrating the hitherto undisclosed 'genealogy' of occupation movements that formed in the center throughout the 1970s and 1980s in close collaboration with Liberation Theology and the Workers' Party. It subsequently initiates a 'taxonomy' of the plethora of urban movements that became involved in downtown squatting throughout the 1990s and 2000s on the basis of their most epochal building occupations. Afterwards, an 'anthology' of occupations sheds light on the center's most paradigmatic contemporary building occupations, dissecting the architectural adaptations and social practices that sustain São Paulo as an occupied city. Finally, an 'architectural ethnography' translates multiple years of ethnographic engagement, living and working with homeless families in the most peculiar Hotel Cambridge



3. Central São Paulo: vacant (white), partly abandoned (grey) and occupied (red) buildings. Drawing by the author.

occupation, to unravel the bodily interaction between architecture and homeless people as they transform vacancy into a livable emergency habitat through mutual aid. This way, the chapter unravels the city as a complex constellation of occupations.

The Epilogue (XL) finally extrapolates holistic lessons regarding occupations and the city by distilling four pivotal concepts: vacancy, occupations, movements and mutual aid. As such, a theoretical working-definition of proto-urbanism is formulated as a

particular form of urbanism that is concurrently precarious and exemplary, fragile as much as innovative. A speculative prospection finally starts wondering how vacancy, occupations, movements and mutual aid could nurture more just and sustainable forms of urbanism.

### Methodology

The dissertation is founded on a methodological combination of spatial analysis, fieldwork, and action. The study engages with a long-term legacy in urbanism to investigate the city through its material manifestation. It is reminiscent of de Solà-Morales in probing the city as a concrete and tangible human-made 'thing',<sup>1</sup> focusing on the intermediate scale between architecture and urbanism as a most strategic arena for urban improvement. This spatial approach is fundamentally driven by fieldwork. I participated in movements, inhabited occupations and joined mutual aid, seeking to learn from movements by being part of them. Multiple actions and intensive collaborations were set up in that respect. In total, two years were spent living in downtown occupations in São Paulo, working together on a day-to-day basis with homeless movements to examine how they manually

<sup>1</sup> Manuel de Solà-Morales, *A matter of things*, (Rotterdam: NAI, 2008).



4. Dwelling construction in the Hotel Cambridge occupation. Photograph by the author.

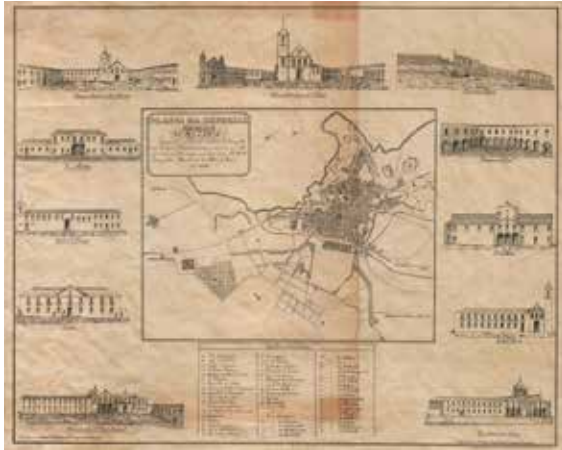
intervene in the architecture of the city in view of structural and lasting social change.

For the purpose of this submission, fragments of the thesis' concluding chapter were reassembled to briefly sketch out the major concepts unfolded throughout the dissertation, dwelling on vacancy, occupations, movements and mutual aid.

### Vacancy

Throughout the development of São Paulo's urban conurbation, vacancy, from the Latin 'vacāre': 'unoccupied', 'not yet taken', 'free from activity', mainly took the form of natural ecology. Ever since the early 16<sup>th</sup> century, the landscape of the Atlantic Paulista plateau was recurrently designated as





5. Map of São Paulo, 1810 (left) and 1924 (right). (Secretaria de Estado de Economia e Planejamento, Instituto Geográfico e Cartográfico).

supposedly vacant and hence ‘open’ to be taken in. The colonial settlement was rooted in a worldview that renders nature as a vacant territory to be explored and manipulated in accordance to human needs and wants. This ‘occupation of the world’ as a biblical obligation to humanity is deeply entrenched in Western thought<sup>2</sup> and closely intertwined with enlightenment’s desperate urge for modernization.<sup>3</sup> The expanding city, in such light, ‘took in’ a *terra nullius*, a land regarded ‘no-thing’ that could consequently only be home erstwhile to so-called ‘no-bodies’. Its ‘pristine’ ecology was regarded undeveloped and hence calling - if not crying out - to

<sup>2</sup> Piron, Sylvain. 2018. *L’Occupation du Monde*. Paris: Zones Sensibles.

<sup>3</sup> Latour, Bruno. 1993. *We Have Never Been Modern*. Cambridge, Massachusetts: Harvard University Press.

be brought into the orbit of development, so figured Western imagination. The wild had to be domesticated, and its resources to be harvested. In this paradigmatic colonial worldview, the landscape was considered vacant for allegedly not yet being occupied, although it was brimming with opportunities: a repository abounding in sources of potential wealth and profit. Nature was indeed (and unfortunately all too often still is) most of all rendered as a mere substance to be exploited.<sup>4</sup> Vacancy, as a normative qualifier, hence incited development, *en route* expelling or domesticating former occupants, both human and non-human, as ‘collateral damage.’

<sup>4</sup> Cronon, William. 1992. *Nature’s metropolis: Chicago and the Great West*. New York: Norton.

Of course, purportedly vacant land never was neither is truly idle. Space is always geographically bound and *specific* in its physical composition. Space is *de facto* a ‘*locus solus*,’ attributed with particular traits. Vacancy is never Cartesian obsolescence. It is never passive, powerless or innocent. ‘*Objects act too!*’ so declared Bruno Latour famously. The extent to which they can thus be considered ‘taken in’ or not always lies in the eyes of the beholder. Indeed, it became clear that São Paulo’s ‘discovered’ landscape radically steered the form of the urban conurbation that came to engulf it. Topographical assets, soil typologies, particular views, defensible opportunities, watercourses or vegetation structures:



6. Vacancies and street occupations in Bixiga and Teatro Oficina. Photographs by the author.

the landscape strongly framed the city's typo-morphological development before largely disappearing underneath it. Nature *made* the city before making place for it, and São Paulo's urban anatomy emerged very much from the locational resourcefulness of the landscape which it meanwhile viciously destroyed. Dean illustrated the vast ecological disaster that paralleled the occupation of the Atlantic plateau,<sup>5</sup> while many others have drawn attention to the concurrent genocide of indigenous peoples who used to inhabit it.

The spatial history of Bixiga makes the structural role of space even more apparent. The toponymy of the natural land-



scape, the nomadic itineraries of indigenous encampments, the demarcation of colonial landholdings, the valley-occupation of the slave refuge: the formal traits of the land set a mold for subsequent cycles of developments. The proliferation of tenements in the neighborhood's building tissue provided a salient example of continuous 'rediscoveries' of new vacancies in formerly neglected urban spaces, as much in larger open flood zones, in the 'backyard' of Italian townhouses, or in the recuperation of abandoned building structures. Resonating with Habraken's distinction between structure and infill,<sup>6</sup> Bixiga's natural and urban landscape served as a spatial skeleton, absorbing and produced by a plethora of subaltern



movements excluded elsewhere in the city. Also in Teatro Oficina, architectural and urban vacancy appealed to rethink spatial opportunities. The episodic chronicle of the ordinary building block in Bixiga recounts a vivid sixty-year history of vacation and reclaim. Its interior was cleared by a spiritualist theatre company in the early 1950s. It was reorganized by Teatro Oficina and the modernist architect and urban designer Joaquim Guedes in the late-1950s, but raided and burned down by paramilitary groups in 1966. Together with the Modernist Movement's peculiar Arquitatura Nova group, the entire building was remodeled. After the violent implementation of the massive Minhocão viaduct, the building block was heavily mutilated. Abandoned and squatted during the 1970s, the ruined theatre was re-

<sup>5</sup> Dean, Warren. 1995. *With Broadax and Firebrand: The Destruction of the Brazilian Atlantic Forest*. Berkely, Los Angeles, London: University of California Press.

<sup>6</sup> N.J. Habraken. 1972. *Supports: An Alternative to Mass Housing*. London: Architectural Press.

# luta por moradia

MSTC - movimento sem-teto do centro - são paulo, brasil - número 3 - fevereiro de 2001 - 3000 exemplares

## queremos moradia!

Da Lapa a São Cêntano do Sul, em torno da Rede Ferroviária Federal

São 135 quilômetros de trilhos! A Rede Ferroviária Federal é proprietária de muita área ao redor da linha de trem que corta a cidade. São centenas de armazéns e galpões vazios que estão desativados e abandonados. O Governo Federal já aprovou com a entrega desses terrenos aos especuladores imobiliários, através de um leilão.

Não podemos deixar isso acontecer. Vamos lutar uma grande luta para transformar essas áreas em MORADIA POPULAR!

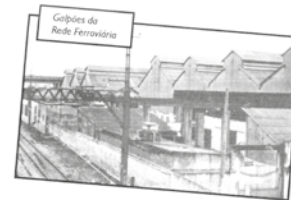
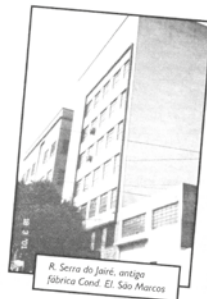
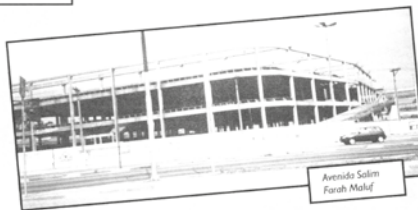
De que forma?

1. O Governo Federal cede os terrenos;
2. O Governo Estadual cede as moradias;
3. A Prefeitura urbaniza (faz praça, áreas verdes, escolas, unidades de saúde e centros comunitários).

São Paulo tem solução. Vamos lutar por um futuro que é seu: pela sua moradia e por uma cidade melhor.



## A cidade está cheia de imóveis vazios e abandonados...



Galpões, armazéns, prédios, terrenos, mansões, casarões, edifícios... São centenas de imóveis sobrando, vazios, sem nenhuma função social, mantidos apenas para especulação. Imóveis que a elite adquiriu com a exploração de milhares de trabalhadores.

Um exemplo é o local onde era a fábrica Multividro. Um quarteirão todo no bairro do Belém. Mulheres, crianças, trabalhadores em geral deixaram lá o seu sangue. Anos a fio foram explorados. Sofreram doenças pelo ruído excessivo e calor escaldante. Foram mutilados por máquinas e vidros. Os patrões construíram outras fábricas.

Enriqueceram-se às custas do trabalho alheio. Agora vão embora, assim como os donos da Goodyear, da Vicunha, da Colméia, da Gases do Brasil e tantas outras empresas, deixando um rastro de destruição. Fecharam as fábricas, demitiram os trabalhadores e estão vendendo as propriedades a preço de ouro. Impedem que os trabalhadores tenham moradia a baixo custo. É preciso resgatar essas propriedades para seus verdadeiros donos: os trabalhadores sem-teto.

Outro exemplo é o terreno de 6.000m², na av. Radial Leste com a rua Hipódromo (2078). Era da USP (Universidade S. Paulo); os atuais proprietários compraram num leilão por R\$5.700.000 (cinco milhões e setecentos mil reais), numa valorização de mais de 7000%. Isso é ESPECULAÇÃO IMOBILIÁRIA. Por isso o povo não tem moradia. É preciso cobrar fortes impostos sobre esses parasitas!

## ...enquanto o povo não tem onde morar!

7. Pamphlets distributed by the Front of the Homeless Struggle (FLM) in the early 2000s: "We want housing! The city is full of vacant and abandoned buildings... ..while the people have no place to live!"

occupied by Oficina in the 1980s, while the remaining building block was raged to the ground by a major real estate firm. The theatre was renewed again in collaboration with the avant-garde architects Lina Bo Bardi and Edson Elito, to be reopened in the early

1990s, by then, a lone edifice in the middle of a large vacant terrain. After a succession of unexecuted design proposals, the contested void incited collaborative explorations in search of more inclusive public space. In all these phases of development, vacancy

evoked critical reflection and reaction. Is it indeed not the vacant realm of the old city of yesteryear that provokes alternative imaginations on the renewed city of tomorrow? In the 'constellations' chapter, the parallel mounting of vacancy and exigency in cen-





8. Hotel Central occupation, 19th century building by Brazil's famed architect Ramos de Azevedo. Photograph by the author.

tral São Paulo during the 1980s prompted homeless people to form occupation movements. Their emergent urban movements saw vacant architecture no longer as merely a set of undesirable 'eyesores'<sup>7</sup> or cor-

<sup>7</sup> Van der Hoorn, Mélanie. 2009. *Indispensable Eyesores: An Anthropology of Undesired Buildings, Remapping Cultural History*. New York, Oxford: Berghahn Books.

roding 'gaps'<sup>8</sup> in the urban tissue, but as a vast landscape of latent opportunities, readily available in the 'heart of the city'.<sup>9</sup> This time, vacancy within São Paulo emerged as

<sup>8</sup> Hoffman, Danny. 2017. *Monrovia Modern: Urban Form and Political Imagination in Liberia*. Durham and London: Duke University Press.

<sup>9</sup> J. Tyrwhitt, J.L. Sert, and E.N. Rogers. 1952. *CIAM 8. The Heart of the City: Towards the Humanisation of Urban Life*. London: Lund Humphries.

a vast urban landscape on its own terms, and it was 'discovered' by homeless movements as a resourceful territory: vacancy as an unprecedented urban chance, again. One of homeless movements' major merits arguably lay in this recognition of discarded architectural patrimony as a copious '*terrain vague*'<sup>10</sup> in the middle of a city replete of homelessness and deprivation. While awaiting new investments, vacant buildings could serve acute urban needs, and this is precisely what homeless movements set out doing from the end of the 1990s onwards. If making the implicit qualities and possibilities of a '*genius loci*'<sup>11</sup> explicit is considered a principal element of urbanism, then housing movements set out to practice a very particular kind of it by incrementally recycling the downtown city left in decay.

If vacancy first emerged as a legitimization to colonize, urban movements in fact recognized it as an opportunity to halt the city's seemingly perpetual displacement of nature. Many cities have crossed their ecological footprint long ago, but nonetheless keep growing, steadily igniting a planetary

<sup>10</sup> De Solà-Morales, Ignasi. 1995. "Terrain Vague." In *Anyplace*, ed. by Cynthia Davidson. Cambridge: MIT Press.

<sup>11</sup> Frampton, Kenneth. 1983. "Towards a Critical Regionalism: Six Points for an Architecture of Resistance." In *Anti-Aesthetic: Essays on Postmodern Culture*. Seattle: Bay Press.





9. Street occupation of the Avenida Paulista to protest the impeachment of Dilma Roussef (2016), temporary occupation of the Municipal Town Hall of São Paulo in 2017 to contest the planned eviction of the Prestes Maia occupation, and a building occupation during a squatting night by the FLM in April 2016. Photographs by the author.



10. Street occupation of the Avenida Paulista to protest the impeachment of Dilma Roussef (2016). Photograph by the author.

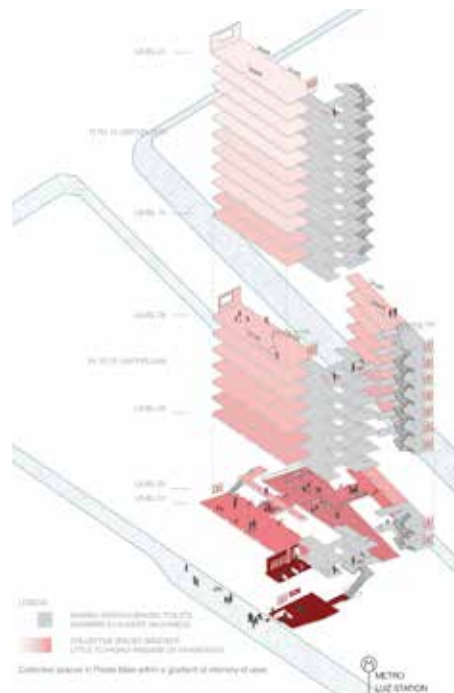
catastrophe. Central areas, as they went through numerous waves of urban development and investment, hold paramount symbolic importance and are well-connected, packed with social and cultural services, and awash in economic opportunities. Nev-

ertheless, pandemic building mania continues to squander resources in relentless urban sprawl while the best located areas are left in sheer abandonment or relinquished to touristification. Are occupation movements then not indicating more sustainable and socially just urban development scenarios by recuperating these repudiated urban centers?

## Occupation

Thriving on vacancy, 'occupations' have shown to be equally ambivalent. The Latin '*ocupāre*' covers as much an act of 'taking up,' 'seizing,' and 'taking in,' as implying an engagement to 'use,' 'employ,' 'invest' and 'busy oneself with.' The occupational act consequently hovers between a disruptive claim on the one hand, and a reformist in-

11. Spatial analysis, exterior implantation and interior corridor in the Prestes Maia occupation. Drawings and photographs by the author.



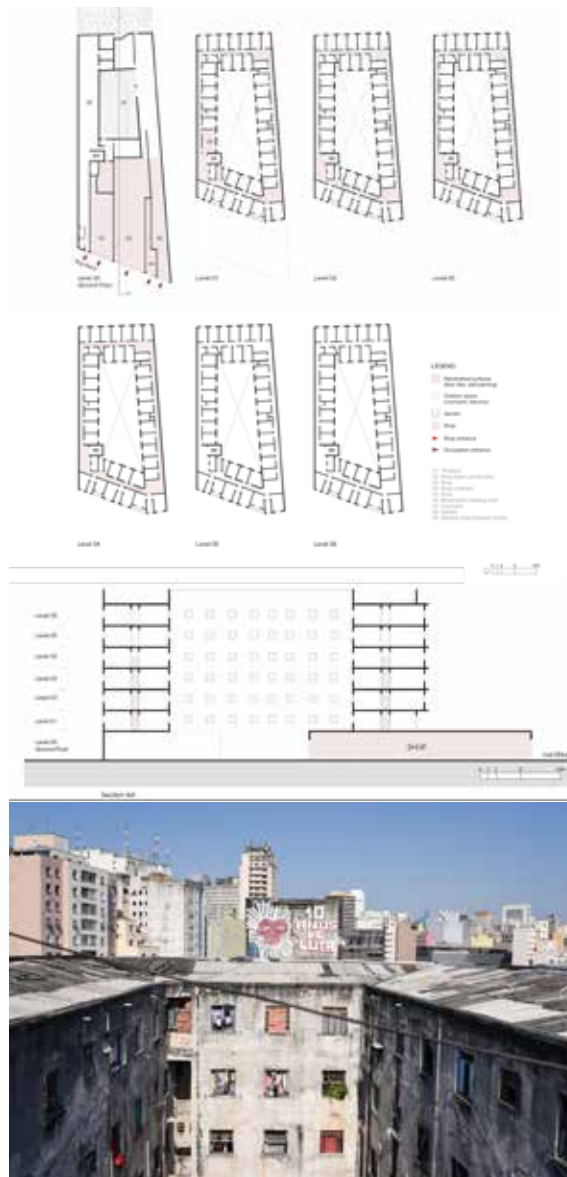
tervention on the other hand. Occupations are thus always also partly 'invasions', transgressively confiscating space that belonged erstwhile to another spatial and social order. Their legitimacy is always subjective and hence inevitably a moral concern. During its early urban development, 'free' occupation of land surfaced as São Paulo's prototypical urbanization formula. Nomadic Indigenous occupied the Atlantic forests for centuries, while drastically transforming its

ecology. During the colonial era, São Paulo's embryonic outlines predominantly resulted from pioneer-logics, adapting largely to the layout of the landscape. Different social and cultural groups simply settled in and with the landscape by occupying the most opportune places. The higher triangular escarpment of the Paulistanian plateau facilitated a defensible ground for a permanent settlement structure during the colonial era. The surrounding wetlands easily

received the first urban expansions such as Bixiga. The Tietê's wide waterbasin proved well-suited for industrial development, while the highest crest of the Caaguaçu mountain provided a monumental structure long before the Avenida Paulista came to crown it. Valleys were reclaimed by avenues, while bridges, viaducts and tunnels traversed topographical folds.

Until at least halfway the 19<sup>th</sup> century, free occupation of land was São Paulo's most

**12. Spatial analysis and inner courtyard of the Maua occupation. Drawings and photographs by the author.**



commonplace form of urban growth. It was however inherently conditioned by factual appropriation, and land-use rights were legally and theologically bound to land-use duties.<sup>12</sup> To rightfully occupy, one had to work and cultivate the land. The right to occupy inheres an obligation of use. In a caricature, one could conclude that the occupation is a prototype of Latin American urbanism. While the urban conurbation was continuously expanding, new urban aspirations were continuously juxtaposed on top of the old center, which developed consequently into a uniquely 'thick' urban site that holds remarkable opportunities precisely because of its idiosyncratic and dense urbanistic history. Central São Paulo emerged as a resourceful urban ecology on its own terms, inviting to be occupied again.

The emergence of occupation movements in central São Paulo throughout the last quarter of the 20<sup>th</sup> century was deeply anchored in these unique characteristics of the center. Three particular typologies of occupations within the city are discerned. First, occupations of public space provide an age-old means to denounce public concern and political discontent. The central

city emerges here as the and symbolic segment of the city, soaked with use and meaning. Street-occupations often address its specific public institutions, buildings, or monuments on well-chosen squares, parks and avenues. Massive demonstrations, such as the June 2013 uprisings, target highly allegorical trajectories. Although the architecture of the city is most frequently regarded as a mere 'backdrop' of such social protests, it actually makes up a prime actor in choreographies of popular revolt. Monumental avenues, stately squares, and large parks all contribute to the center's aptitude as the city's paramount political agora.

Secondly, occupations can 'invade' semi-private political institutes to directly interfere in their managerial logics. Such occupations offer a powerful tool for urban movements to intervene in political processes with movements' direct tactics ('we are here and won't leave until...'). These occupations are deliberately disruptive, and the transgression of institutionalized ways of doing politics is a major aim.

The third, and here most carefully studied, category of occupations sets out to 'squat' private or public buildings and sites to address acute needs. Such occupations perform a double demonstration. On the one hand, they symbolically denounce popular

<sup>12</sup> Rolnik, Raquel. 1997. *A Cidade e a Lei. Legislação, Política Urbana e Territórios na Cidade de São Paulo*. São Paulo: Studio Nobel.



13. Front facade of the famed Hotel Cambridge occupation. Photograph by the author.



concerns, demonstrate presence, and protest against the neglect of housing rights. On the other hand, they also demonstrate possible responses by setting out to manually build interim solution *in situ*. These occupations alternate between protest and proposal. The Homeless Movement of the Centre (MSTC) and the Front of the Homeless Struggle (FLM) radically devote to autonomously construct spaces of cohabitation that thrive on mutual aid. Occupations are hence by nature acts of creative destruction, a theme also prominent in Teatro Oficina's architectural and urbanistic legacy. They take before asking, but only for not being given dignified space. In a certain way, they follow in that São Paulo's prototypical mode of urbanization.

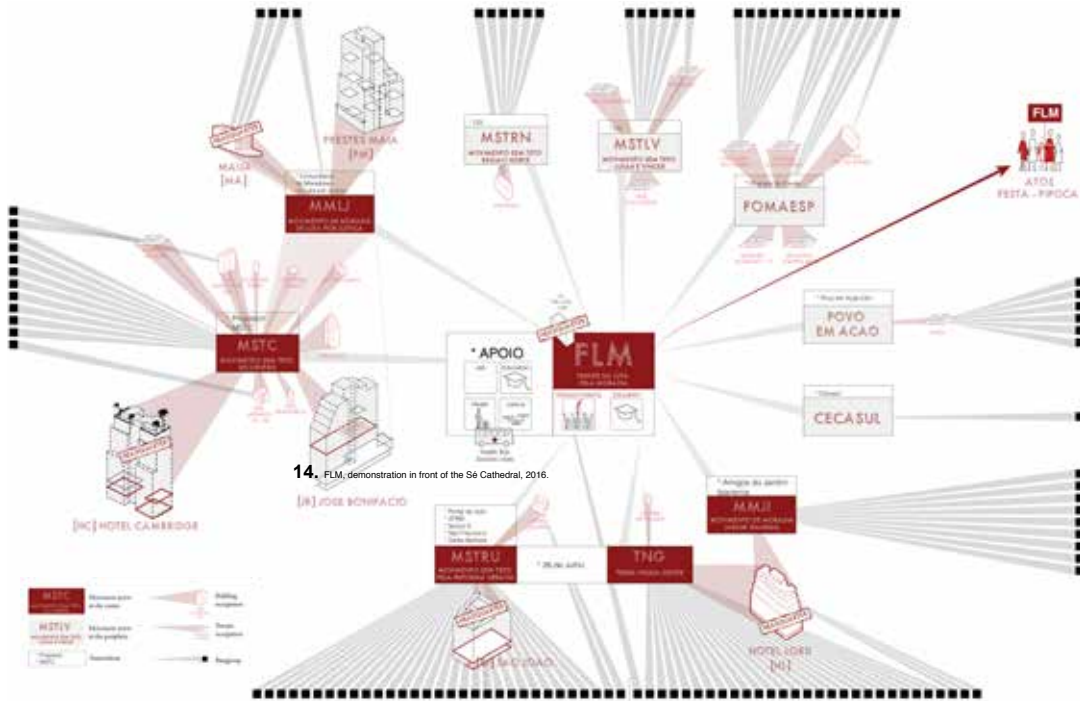
Although many authors draw attention to the 'insurgent'<sup>13</sup> or 'transgressive'<sup>14</sup> aspect of occupations, movements themselves maintain a much more humble discourse geared towards reform, repair and rectification in searching social justice. Their architectural settings drastically impact eventual success. The Hotel Maua's large

courtyard invites for communal activities, while its small private dwellings, narrow corridors, and deficient sanitary installations make up a relatively precarious habitat. In the Prestes Maia occupation, large open factory-floors lifted by heavy concrete columns provide an open frame for numerous small dwelling cubicles. Despite omnipresent mold and leaks, wide open corridors provide ample space for everyday encounter. The Hotel Cambridge, in contrast, was in remarkable good shape when occupied in 2012. Its luxurious hotel rooms easily accommodated temporary residences, and its erstwhile saloon and restaurant almost naturally came to cater communal events. That its architecture was once tailored towards a high-brow clientele paradoxically served later to uplift popular resistance by radiating dignity and pride. At the very same time, the tragic collapse of the Wilton Paes occupation reminded how occupations remain highly fragile, structurally deficient or outright hazardous. They frequently lack elevators, running water, light and ventilation. In short: space matters. Architecture matters. Occupations underscore and draw from the agency embodied by the architecture of the city, for better and for worse.

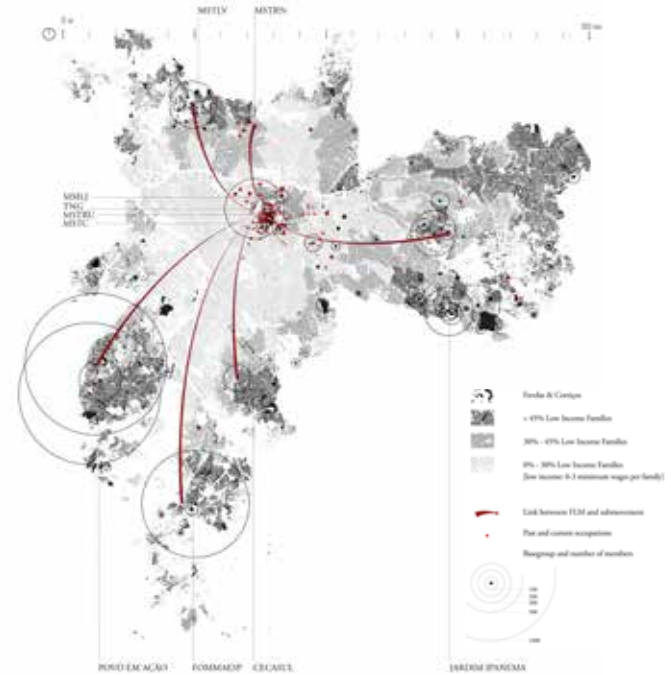
<sup>13</sup> Holston, James. 2008. *Insurgent Citizenship: Disjunctions of Democracy and Modernity in Brazil*. Princeton: Princeton University Press.

<sup>14</sup> Earle, Lucy. 2017. *Transgressive Citizenship and the Struggle for Social Justice. The Right to the City in São Paulo*. London: Palgrave Macmillan.





14. FLM, demonstration in front of the Sé Cathedral, 2016.



15. Organizational diagram and spatial geography of central São Paulo's 'Movement of Movements'. Drawings by the author.

16. Organizational structure of FLM (Edited from Studio São Paulo: Bosmans, De Beukelaer, Monteiro, van den Eynde, 2016)

## Movement

From the Old French '*mouvoir*,' movement refers to displacement, 'going from one place to another,' changing residence. It implies a transition, a migratory flux through space. It is, in this perspective, older as the city itself. Tupí groups were highly nomadic as they way-fared through the landscape. Iterative migratory waves from all corners of the globe afterwards nurtured the expansion of the city's conurbation and arrival

neighborhoods such as Bixiga. A second etymological coverage of the term is derived from the Latin '*movere*,' and refers to an act of 'setting in motion,' 'disturbing,' or even 'pushing away.' Movements by nature disrupt and perturb.

Movements are, of course, also schools of thought and forms of direct action. It were such subaltern movements that gave shape to the quarter of Bixiga. Diseased indigenous, escaped Blacks, impoverished mi-

grants and rural refugees gradually pieced together a remarkably vibrant urban neighborhood amidst the city's principal urban centers. Rather than operating in the 'margin,' urban movements came very much to the fore as chief stewards of urban production. The case of Teatro Oficina subsequently showed the close intertwining of such popular movements with intellectual, architectural and urbanistic movements, including modernism and liberation theology.

Precisely in the material realm of the theatre building and the building block these movements intermingle.

Urban occupation movements, as a particular constituent of Latin America's wide network of social movements, emerged in the 1970s as a direct response to the oppressive configuration of the city. Born from the deprived living conditions of the center's tenements, São Paulo's central movements were heavily influenced by massive peripheral land seizures and the rural Landless Movement (MST). Downtown occupation movements developed in direct response to worsening precariousness, setting out a struggle for rights over the locational assets contained by the central city. Tapping into the formerly neglected stockpile of vacant buildings, homeless movements were – and still are – radically *spatial* movements, seeking spatial justice,<sup>15</sup> and formed by bodies 'in movement' because of disagreement with the space that was allocated to them.<sup>16</sup> These movements were hence unwittingly urbanistic from their very outset, as the adaption of the material city was their principal *raison d'être*. The architecture of

<sup>15</sup> Soja, Edward W. 2010. *Seeking Spatial Justice*. Minneapolis: University of Minnesota Press.

<sup>16</sup> Zibechi, Raul. 2012. *Territories in Resistance: A Cartography of Latin American Social Movements*. Oakland, Edinburgh, Baltimore: AK Press.



17. Mutirão cleaning during the first day of the 9 de Julho occupation in 2018. Photograph by Virginia Medeiros

the (central) city became both the site and subject of their grassroots rage.

From different ideological strains and operational approaches, a genuine 'movement of movements'<sup>17</sup> emerged in central São Paulo, based on a rhizomatic network of base groups, associations, federations, unions, NGO's, assemblies and collectives. On the

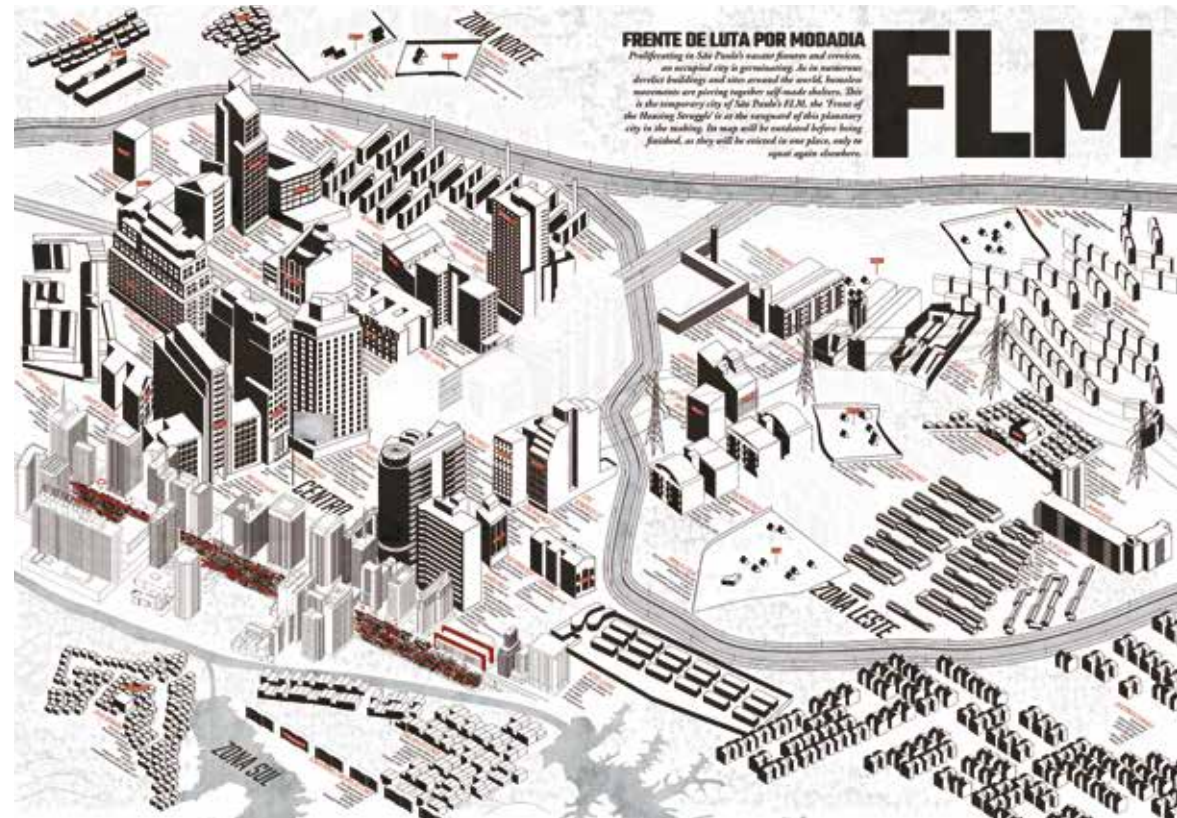
<sup>17</sup> Sen, Jai. 2017. *The Movements of Movements: Part 1: What Makes us Move?* Oakland: OpenWord and PM Press.

one hand, the resulting movement of movements is remarkably structural and vast, stretching across municipal, metropolitan, regional, federal, continental and even inter-continental networks, deeply interlocked with the political left. On the other hand, they are simultaneously highly local, operating in the everyday hustle and bustle of the city's poorest and most violent nooks and crannies.

The recognition of vacant buildings and sites



as a repository of latent urban chances is not unique to São Paulo. What nonetheless distinguishes São Paulo's central occupation movements is the structural scale on which such vacancy became systematically squatted through highly organized and outspokenly political movements. That such vacant buildings were embedded in the urban fabric of precisely the *center* of the city made them all the more worthy. For the very same reasons, their uncertain future was almost de facto contentious. These are not 'ruins'<sup>18</sup> or 'debris'<sup>19</sup> left from former urbanization waves, but instead, a highly worthy architectural inheritance, temporarily suspended from use for speculative reasons. Their fundamental centrality became simultaneously occupations' main merit and their principal obstacle, as they engaged in a highly contested 'cry and demand'<sup>20</sup> to the very *center* of the city, including all the services and qualities it contains. That São Paulo's urban movements operate not only on an 'acupunctural' level, but interact with the major structures of city and society was also evidenced by their en-



18. Interpretative map of the Front of the Homeless Struggle as an autonomous city. Drawing by the author.

<sup>18</sup> Buchli, Victor. 2013. *An Anthropology of Architecture*. London, New York: Bloomsbury.

<sup>19</sup> Stoler, Ann Laura. 2013. *Imperial Debris: On Ruins and Ruination*. Durham and London: Duke University Press.

<sup>20</sup> Lefebvre, Henri. 1996. "The Right to the City." In *Writings on Cities*, ed. by Eleonore Kofman and Elizabeth Lebas. Oxford: Blackwell.

forcement of a constitutional right to housing and legally bound social function of property. Urban movements were moving the city, and would continue to do so in ever more profound ways.

## Mutirão

*Mutirão*, from the Tupi-notion of *motyry*, ‘mutual aid,’ surfaces as a major recipe of spatial production and city-making throughout the memoir of São Paulo. While *mutirão* was discussed by scholars of Brazil’s indigenous Tupí culture as the most salient form of indigenous sociability,<sup>21</sup> the Russian anarchist-philosopher Kropotkin had already theorized mutual aid as a natural factor of evolution.<sup>22</sup> To be sure: there is nothing romantic about such solidarity, which has everything to do, following Kropotkin, with a mere struggle for survival. Those ‘housing themselves’ in *favelas* and *ocupações* simply depend on mutual aid for establishing a livelihood. Solidarity sprouts from emergency.<sup>23</sup>

Theorized by Arquitetura Nova in the 1960s,

<sup>21</sup> Métraux, Alfred. 1928. *La civilisation matérielle des tribus tupi-guarani*. Paris: Geuthner; Fernandes, Florestan. 1963 (1st publication in 1949). *Organização Social dos Tupinambá*, São Paulo: Difusão Europeia do Livro.

<sup>22</sup> Kropotkin, Peter. 1998 (1st edition in 1902). *Mutual Aid: A Factor of Evolution*. London: Freedom Press.

<sup>23</sup> Solnit, Rebecca. 2010. *A Paradise Built in Hell: The Extraordinary Communities that Arise in Disaster*. Viking Adult.



19. Occupation of the Palace Hotel in 2010. Photograph by Anderson Barbosa

and tested-out with Teatro Oficina, *mutirão* later also made name as a principal social housing model during Brazil’s re-democratization in the 1980s,<sup>24</sup> and against the backdrop of severe economic crisis. *Mutirão* gave this way birth to what Paulistanian urbanist

<sup>24</sup> Fiori Arantes, Pedro. 2002. *Arquitetura Nova: Sérgio Ferro, Flávio Império e Rodrigo Lefèvre, de Artigas aos Mutirões*. São Paulo: EDITORA 34.

Erminia Maricato labelled a ‘new school of urbanism.’<sup>25</sup> In such *mutirão* projects, renewed alliances between governmental (as funder and land-allocator), professional (as technical assistant) and civil actors (as self-constructing and self-managed com-

<sup>25</sup> Maricato, Erminia. 2011. *O Impasse da Política Urbana no Brasil*. São Paulo: Editora Vozes.



munities) were explored.<sup>26</sup> Although *mutirão* building practices proliferated in Brazil while architectural and urbanistic discourses on ‘self-help’ and ‘advocacy’ were widely in vogue in urbanism and urban planning, the communal aspect that underpins *mutirão* received relatively little attention from international scholarship. That those who have to fend for themselves have meanwhile massively organized in large social movements remains a painful gap in urbanism discourses and practices involved in human settlements.

Up to today, *mutirão* dictates occupation movements’ ‘*modo de viver*’ (way of living) and ‘*modo de fazer*’ (way of making, doing, building). Base groups, in keeping with Paulo Freire,<sup>27</sup> serve as the most localized nuclei where *mutirão* is introduced as a tool

for liberation. Bound to facilitate a collective *concientization* of impoverished urbanites, base groups are inciting collective action. Mutual aid here has to revert political acceptance and passivity among the urban poor. For most organized homeless movements, it is by collectively investing in occupied buildings through communal work that illicit ‘invasions’ become legitimate ‘occupations.’ Here again, the right to use relies on a duty to use. The collective seizure of vacant buildings, the subsequent collective cleaning, and cooking, installation of dormitories, and the collective life imposed by newly conquered space all draw from mutual solidarity: occupation life is by definition collective. *Mutirão* appears in that as a foremost instance of ‘commoning’, proposing collectivity as an alternative realm that is neither private nor public, but simply held ‘common’.

## Proto-urbanism

The notions of vacancy, occupation, movement and *mutirão*, all relate in multiple ways to practices and discourses of urbanism, while simultaneously always being different from any established paradigm. Against a global backdrop of mounting housing crisis, dwindling democracy and slashed welfare redistribution, the peculiar practices of urban movements appear highly informative to speculate on more socially just and ecologically sustainable models of urbanism. The notion of proto-urbanism is therefore proposed as a helpful device to better understand the interaction between urban movements and urbanism. Each of the formerly unfolded notions contributes to the definition of proto-urbanism sketched out below.

Proto-urbanism would then be anchored in the spatial resourcefulness of vacancy. It recycles and reclaims, capitalizing on former urban investments. Proto-urbanism thrives

<sup>26</sup> Bonduki, Nabil. 1992. *Habitação e Autogestão: Construindo Territórios de Utopia*. Rio de Janeiro: FASE.

<sup>27</sup> Freire, Paulo. 1968. *A Pedagogia do Oprimido*. Rio de Janeiro: Paz e Terra.

on the recognition of existing spatial opportunities. Urban movements are found to be at the vanguard of such endeavor. Proto-urbanism is a proposal to tap into such social agency, while simultaneously recognizing the importance of spatial agency contained by urbanistic and architectural ‘things.’

Secondly, proto-urbanism seeks to value temporary-permanence and permanent-temporality. Such an urbanism would learn from occupations how temporary solutions can take permanent presence. It settles nowhere forever, but it is always somewhere, it is always there. It moves place and shifts form. Proto-urbanism proposes to recognize the power of temporary use, but with attention for the spatial frame in which it occurs. This would necessitate an urbanistic effort to deal with uncertainty, and plan and design spatial frames and platforms rather than blueprints and complete makeovers. This, in turn, would necessitate

alternative technical, aesthetic, and organizational design models, facilitated and enforced by more adaptive legal frameworks.

Proto-urbanism is an urbanism that acknowledges the performativity of social movements, starting from the assumption that social movements are prototyping alternative urban development scenarios, as an appeal to the spatial disciplines to incorporate such knowledge in its discourses and practices. Such prototypes are real scale tests ‘in the field.’ They still contain flaws and bugs. They are fragile. Without political, technical, social and cultural support they remain highly precarious. Proto-urbanism proposes to work with the agency of movements, without denying the importance of urban design and planning.

Proto-urbanism furthermore recognizes both the values and issues of mutual aid. It advocates a balancing exercise between communal organization, private responsibility and

governmental engagement, where the one is not simply denying or replacing the other. It starts from wonderment if there are not hidden opportunities in current occupation practices from which both proprietors, occupants and policy-makers would mutually benefit. Such model of urbanism could necessitate other constellations between public, private and civil actors, but also between social and material actors and actants, acknowledging the structural role of urban and architectural space. It would, in keeping with Latour, mean to *abandon the idea that ‘social action’ is exclusively human.*<sup>28</sup>

In seeking social justice, a large task lies ahead for the discipline of urbanism in further attuning its discourses and practices with those of urban movements that percolate cities worldwide. This dissertation aims to incite such reflection and aspires further debate.

<sup>28</sup> De Vries, Gerard. 2016. *Bruno Latour*. Cambridge, Malden: Polity Press, 86.

# finalist

## The city of Donostia. San Sebastian before 1813. Claiming its presence

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### Introduction

This work arised from the need to provide new data and a new vision on the history of the construction of the city of Donostia-San Sebastian, before its destruction by the Wellington army in 1813. This history has been little studied and analyzed by architects and scholars in general. We have aimed to establish a set of images, a story, as didactic as possible, not only of what the architecture of the city was but also of its permanences, of the identity signs that best explain the urban structure of the current city.

The richness of the cartography handled is immense and of great value for understanding the transformation of the relief, roads, borders, buildings... A compi-lation of some 150 planes has been ob-



tained, many of them unknown, found in the Spanish, French and English archives. The research has also been based on historical written documents that complement the cartography, taken from the same archives and published works. Such material has been inspected and analyzed in detail.

The need for precision in the management of these multiple data on the city space leads to its recomposition using CAD as a resource. The pre-1813 city is reconstituted in its exact location, generating a 3D model, the true backbone of this work. Starting with the current topography, the orography is restored removing the changes operated in the 19th and 20th centuries, by superimposing the old cartography, by successive approximations, and aided by the references provided by some singular buildings that have remained. This method of investigating the history of the construction of the city through its reconstitution, both general and in detail, generates a fruitful dialectical relationship between drawing and research, between drawing and analysis. The search for the exact location of the elements requires an analysis of the data and documents in a more scientific way, with some important results and discoveries that in turn enhance the richness of the drawing and the 3D model.

The relief is drawn up with the traditional application of level curves that adapt to the previous reality; a real perception of space and territory is so acquired in its true dimensions. The expression is not only a two-dimensional drawing, as has been done up to now when presenting the works and physical elements of the formation of a city, but also, and especially, three-dimensional drawing. By creating a virtual but specific physical 3D model, every perspective becomes possible, both on a general and a particular scale. You can wander inside the city at ground level, as its inhabitants saw it. You can even achieve a presentation in 4 dimensions by adding the sequence of time, making films.

The confrontation between the current city, the images of its past, and the representation of its past reality obtained from the 3D model acquires a readability never achieved before. It is not just about gathering and analyzing the documentation to translate it into a text; you also have to act like an architect, proposing a rigorous hypothesis, that is, a project of the construction of the eighteen-century city, even if virtual, like every architect's project. A retroactive project, but not closed, that allows us to rediscover the guidelines and elements that shaped and still shape the city.

The researcher also acts as an artist-architect, with his plastic praxis, but one who relies on his knowledge of the history of urban planning and architecture. Unique criteria must be maintained regarding the plastic quality of the final result, criteria that must pursue an explicit and rigorous representation, without alterations due to excessive or misunderstood realism. In short, the work presented here is nourished by scientific research and artistic representation, mutually reinforcing each other in an empirical dialogue, to achieve new levels of knowledge about the formation of the city, its structure, and its permanence. The artistic expression we used tries to find similarities with the artistic style of the past era to understand it and live it better.



## The invention of a city

Going back to the High Middle Ages, it is possible to summarize, by way of hypothesis, the distribution of the first settlements in the territory of San Sebastian:

1. At the foot of an emblematic mountain, Monte Urgull, between La Concha bay on the left and La Zurriola, the estuary of the Uru-mea river, on the right, at a high level, a central nucleus, possibly a “Roman fondaco” in its origin, with the parish of Santa Maria and the Basilica of Santa Ana.

2. The arch of La Trinidad, a single street, the street of la Trinidad “a la redonda”, which united the entire city, probably before the “founding town”. It started east on a small hill with a first section to be called “De La Moleta”, today Campanario street, to continue towards La Zurriola, passing in front of Santa Maria, in a second

1. First settlements on the *Plan de la ville et des environs de Saint Sebastien*, 1721, SHD Vincennes.



section that will keep the name of La Trinidad, today called 31 de Agosto street.

3. The eastern limit of the street of La Trinidad, with the parish of San Vicente, which was accessed through a slightly curved road, the future Narrica street.

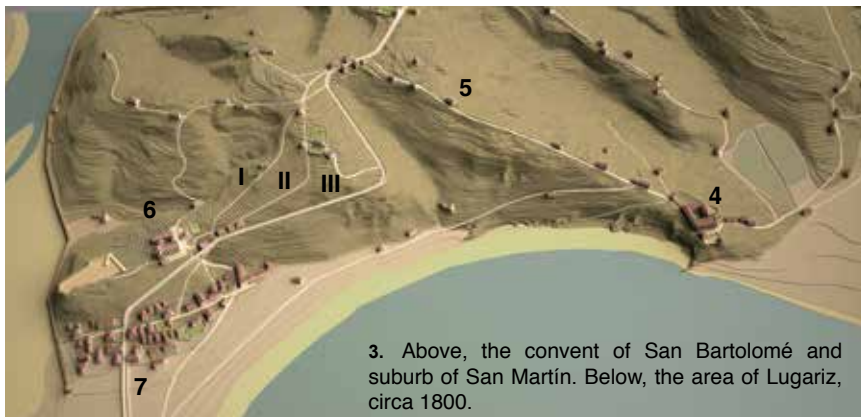
4. On the opposite side of the bay of La Concha, a nucleus in the surroundings of the convent of San Sebastian la Antigua. This convent and his belongings will be donated in 1014 to the Leyre monastery by the King of Navarre, Sancho el Mayor. The document of the donation talks about a “villa” called Izurum “by the ancients”, that is, the Romans. “Villa” has its Latin meaning of rural colony with its buildings, its meadows, woodlands, and agricultural land. It was common for these Roman “villas” to be transformed into conventual ensembles in the Middle Ages. The convent was rebuilt in the 16th century and destroyed during the First Carlist War around 1836.

2. The convent of San Sebastian la Antigua, circa 1800



**5.** Next, to the east, the old area of Lugariz, with, at its center, the Tower of Izaburu, that is, the head (buru), of iza/u, possibly a tower whose remains were recently destroyed in 2010 and which presided the domains of the “villa” of Izurum. These domains occupied the southern slope facing the bay of La Concha, nowadays known as Miraconcha.

**6.** Still further east, the surroundings of the very old monastery of San Bartolomé. This was the most important convent in the province, renowned throughout the Peninsula. Very few images remain of it. Its church, which housed 12 relics of saints, was entirely rebuilt between 1707 and 1711 by the Italian architect Hercules Torelli, and its frontispiece with Doric, Ionic and Corinthian colonnades,

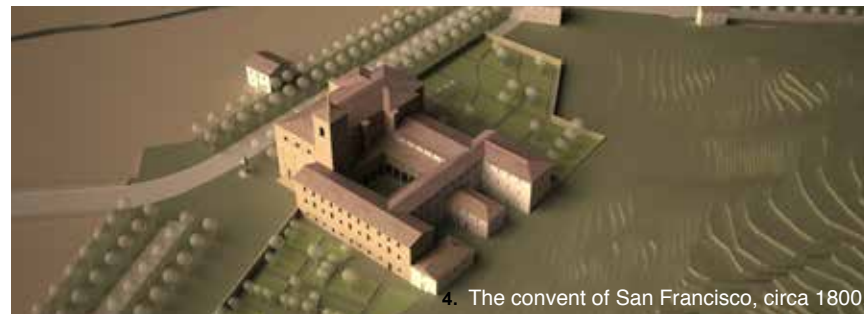


**3.** Above, the convent of San Bartolomé and suburb of San Martín. Below, the area of Lugariz, circa 1800.

prompted everyone's admiration. The frontispiece will be destroyed during the siege of 1813, and the rest of the building will gradually fall into ruin.

**7.** The settlement of San Martín, around the basilica of the same name. It was the starting point of Hernani's path towards the interior of the province and towards the capital of the kingdom. The path went up the slopes of Lugariz and passed in front of the convent of San Bartolomé. Three layouts or successive phases of this path have been discovered, the one on the left was the oldest (I), the central one, from the beginning of the 18th (II), and the most recent one on the right, from the beginning of the 19th (III), which passed through a viaduct over the first section of the previous two. Part of it has remained as the current Aldapeta slope. The group of houses of San Martín, including the hermitage of Santiago and the Hospital de la Misericordia, which absorbed the Basilica of San Martín, dominated by the convent of San Bartolomé, must have offered an impressive image to the navigator entering La Concha.

**8.** The nucleus of Santa Catalina with its basilica-hospital, on a hill, controlling the passage of the Urumea river and dominating an inlet transformed into a river port. Until the 18th century, this port was vitally important for the city's commerce; through it passed all the iron, manufactured in the ironworks of the river basin, as well as



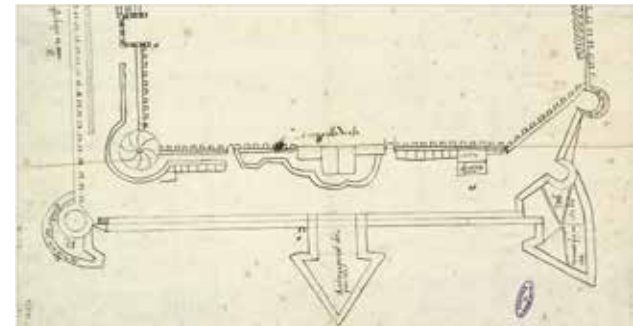
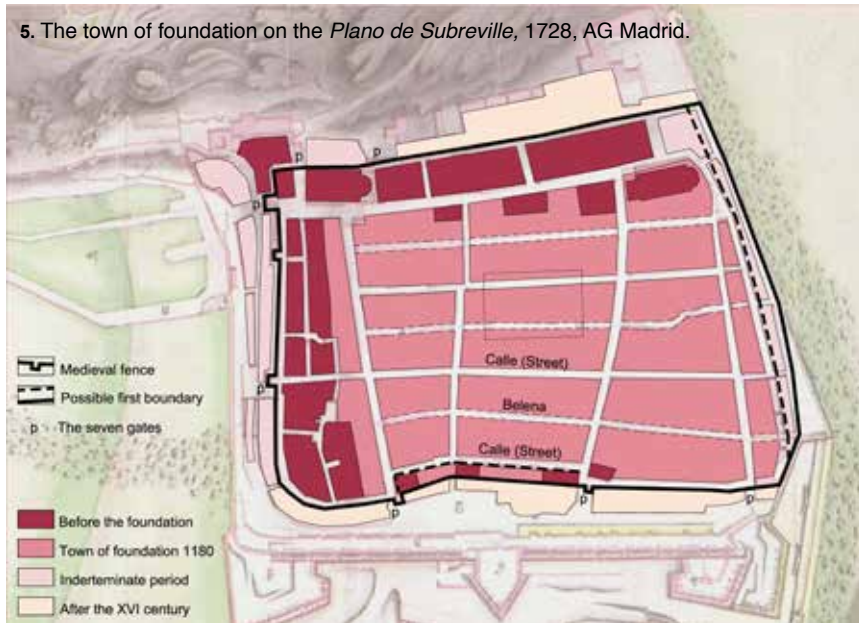
**4.** The convent of San Francisco, circa 1800.

wood and other products, like cider, essential for Basque sailors. Further south, the shipyards proliferated on the banks of the river, especially in the XV, XVI, and XVII centuries. They served in part to build Felipe II's Invincible Army. The hospital- basilica disappeared in the Duke of Berwick's assault in 1719.

9. A later and scattered settlement of tower houses and farmhouses on the right bank of the river. Facing Santa Catalina, the Convent of San Francisco will be founded in the second half of the 17th century, in a delightful place where groves and water sources abounded and from where, after crossing the Santa Catalina bridge, the road to France began. In front of its entrance, the sculptor Francisco de Azurmendi made in 1785 a beautiful baroque fountain, called the Churrutal. It disappeared with the convent, half a century later, during the First Carlist War.

The foundation of the town of San Sebastian by the King of Navarre Sancho el Sabio dates from 1182; but this does not mean that ex nihilo was created, and if the Franks's jurisdiction was applied it is because a Gasconian population, that is, of frank customs, already resided in it, as it had been populating the entire Gipuzkoan coast from the sea. The city is planned to start from the arc angle of La Trinidad and, perhaps, from some tower houses in the southern part. A not quite regular checkerboard is created as it is supported by two vertical and converging streets, the future Calle Mayor bordering the west hill, and the slightly curved Calle Narrica; and between these two, a later and secondary irregular bisector street, Calle San Geronimo. Horizontally, streets alternate with "belenas", that is, the back of the long Gothic plots. Over time the city will become denser and the "belenas" will either become streets or be

5. The town of foundation on the *Plano de Subreville*, 1728, AG Madrid.



6. Above, Tadino's "Obra Perpetua". Below, detail of Villaturiel's plan, 1546, AG Simancas.



absorbed by the houses. The city was immediately provided with a walled fence with seven gates. The best known will be Santa Maria, on the northwest, Santiago on the west, and, the two on the south: Las Animas, in front of Calle Mayor, and La Piedad, in front of calle Narrica.

At the beginning of the 15th century, the Italian Gabriele Tadino da Martinengo, superintendent of the fortifications and artillery of the emperor Carlos V, will design a new defensive system for San Sebastian, that is, a second wall on the southern front, calling it “Obra Perpetua”, the Perpetual Work. It will propose a kind of trident with two semi-arrows in the corners and a whole arrow in the center, coming out of a wall with a wide background, the Royal Curtain. The central arrow will be known as the Imperial Cube. Tadino only describes how to build half an arrow and from it, all the others are repeated. It can be seen how the “Obra Perpetua” is realized in a

7. Detail of Richard Poulter’s drawing ,1585, British Library.



Villaturiel’s plan from 1546. The central Imperial Cube looks finished, but the bastions at the ends have barely started and are distorted. They will only be finished, in a different way, in the 18th century. To the left of the Imperial Cube, the main city gate, or land gate, will be enabled.

San Sebastian had a maritime and commercial vocation. Its harbor was small, but this was compensated by the so-called large harbor, that is, the bay itself. Several keys or cayas (a name that comes from the Gascon that has given Kaia in Basque, quai in French and key in English) followed one another in time. At the end of the Middle Ages, there was Cay Urgull, at the foot of the mount, and Cay Erdi or Old, this one disappeared nowadays. At the beginning of the 16th century were built Cay Buru and Torreko Caya, with its tower that passed away around 1750. These two keys persist today, the first somewhat shortened. At the end of the 16th century, it

8. Hércules Torelli’s Citadel. An ideal reconstitution of the author





was wanted to add two more docks with two new keys facing each other, the Cay Arriba and its facing one, which was destroyed by a storm in the early 17th century and remained as a breakwater until it was completed in the mid-19th century. A nice english drawing by Richard Poulter dated 1585 shows the construction of Cay Arriba by the introduction of prismatic boxes.

Besides being a maritime city, San Sebastian, being near the french border, was also a military plaza. At the top of Mount Urgull there was a castle from the time of the kingdom of Navarra. This castle with its central tower was renovated by Tadino de Martinengo himself. Later, an attempt was made to increase the scope of the castle and transform the mountain into a citadel. Supporters of giving priority to the citadel project clashed with those who preferred

strengthening the city's fortifications. There were always financial constraints, and the one who paid, in the end, was almost always the city itself. But it should not be forgotten that the citadels also served to control a potentially rebellious population. San Sebastian was considered an unsafe city, full of foreigners, French, Dutch, and English mainly, and consequently, of heretics.

The culmination in terms of the design of both the citadel and the rest of the fortifications will materialize with the engineered architect Hercules Torelli, at the end of the 17th century. Had his citadel project come to fruition, it would have been one of the most relevant in Europe, worthy of those made by Vauban, at whose service Torelli worked in Toulon around 1680. He proposed to establish three successive rings, the first and the second around the

9. The "Rondeau" and the land entrance into the city, circa 1800



10. Phelipe Cramer's plan of *una parte del frente de tierra...* 1754, AG Madrid. Above, photograph of 1891.



castle with two hornworks to the east and west; the third, lower, with a hornwork to the west formed by the batteries of Las Damas and Santa Clara, controlling the entrance to the Bay; a bastion to the north, dominating the Cantabrian Sea, and another to the east, erected on the rocks, which swept the city and its land front. The latter, like those of Las Damas and Santa Clara, although renovated, are today magnificent city identity signs. Isidro Prospero Verboom succeeded Torelli in the direction of the City's fortifications. He proposed more modest projects, but only managed to fix what was damaged by the war of 1719. In one of his plans for the land front in 1728, two areas were reserved for bowling and ball games. This defensive military zone had been reappropriated by the people as an area for walking and recreation, despite the prohibitions of the Madrid Court. Before reaching the land gate, a suggestive urban element was created around 1800, the "Rondeau", a circular bench from where the people of San Sebastián could enjoy the landscape and above all control the arrival and departure of visitors or personalities of the city. It corresponds to the current Cervantes square, the central point of the Paseo de la Concha, as the tree-lined promenade in front of the hornwork prefigures the current Libertad Avenue; there is a certain continuity in the use of urban space. In the same way, the Boulevard, the life center of the current city, corresponds more or less to the land front used by the people of San Sebastian in the 18th and early 19th centuries.

Another of the identity signs that have a strong imprint for the city, as it defines its interaction with the sea and generates the celebrated Paseo de la Concha, is the coast wall that Phelipe Cramer made between 1754 and 1755. It has an elegant curvature, although Cramer only thought, then, to protect the western bastion from the onslaught of the sea. The wall becomes visually more important than the casino-city hall of a dubious nineteenth-century style, which now looms behind.

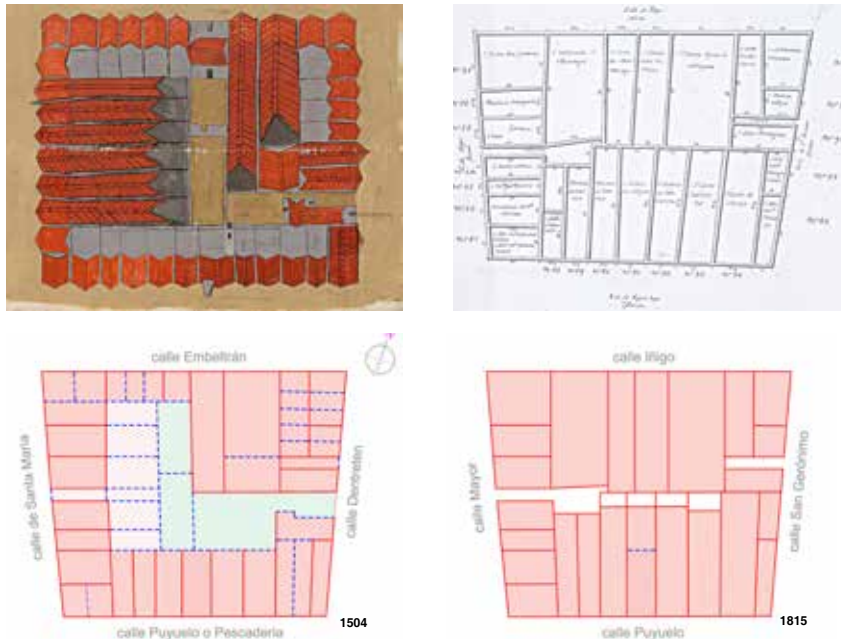
Comparing the drawing of an urban block, the nº8, dated in 1504, located in the Chancery of Valladolid, with the Ugartemendia plot map of 1815 helps us to understand the evolution of the urban fabric of San Sebastian. Three features can be highlighted: -The generalization of the gabled roofs with the front perpendicular to the street, a Gothic solution that prevailed throughout the Atlantic arch. Little by little the direction of the covers will be reversed. -The regrouping of certain plots and the gradual elimination of corrals, orchards, and gardens. -The changes in street names; Calle Santa Maria, for example, becomes Calle Mayor. The city became denser to the extreme. Brackets were used routinely to illuminate and ventilate kitchens and services. The materials used in the construction were still mixed, and stone and even the ashlar were reserved for the noble façade, while the sides and the rear wall were generally made of wooden framework filled with mortar or solid brick. The floors, the roof structure, and the carpentry were of course made of wood. The use of glass in windows became general only from the 18th century.

There are a few drawings that allow us to have an image of the typology of the houses of San Sebastian, especially of the relevant ones, and there are still some houses on 31 de Agosto street, formerly La Trinidad, which were spared from the fire of 1813. These houses, Gothic in their plan, have a front of roughly 6 m, accommodating two openings in the façade and stairs with a single section.

According to a report from 1799, the population reached 10,748 inhabitants in the whole of the territory, of which some 6,000 lived in the intramural area, where some 600 houses were counted, the vast majority with several dwellings per house. The city had a thriving economy since the Middle Ages, based on maritime commerce; on shipbuilding, supported by the surrounding ironworks and on

several factories subject to this activity, such as rope lines, sail factories, rowing factories, etc; in deep-sea fishing and whaling with the production of its oil; in the chocolate trade, that the Gipuzkoan company from Caracas introduced in Europe, framed in the triangular traffic with the sale of slaves in America. The power body at the beginning of the 18th century was constituted by the Consulate, that created the Guipuzcoana company and grouped the most influential shipowners and merchants in the city. The latter's economy had its ups and downs and if it was splendid at the beginning of the 18th century, it declined at the end of the century due to the international situation.

11. Urban block nº8: 1504 drawing of Chancery of Valladolid, and in the 1815 Ugartemendia's plot map.



## The intramural city - The sacral axis

The San Sebastian skyline was very suggestive, with the imposing bow that represented the Imperial Cube and in the background, at the foot of Mount Urgull, the sacred axis, composed from west to east by the bell tower door of Santa Maria, the church of the convent of Santa Teresa, the mother church of Santa Maria, the church of San Ignacio of the Jesuit college, the church of San Telmo of the convent of the Dominicans and the church of San Vicente.

In the sacral axis, we should also consider another essential item such as the Basilica of Santa Ana. It was located in the northwest corner of the town, just behind an important tower house, simply called La Torre, the future Oquendo Tower, today Gastelubide. On its first floor, the municipal council met in the 16th century. With the establishment of the Discalced Carmelites of Santa Teresa in the mid-17th century, the basilica was integrated into the new convent until 1813. It served as a church, until it was built, with extreme difficulty, from 1662 to 1691, the final one of Santa Teresa, upper and behind. Today, only a few remains of the entrance door to the old basilica persist.

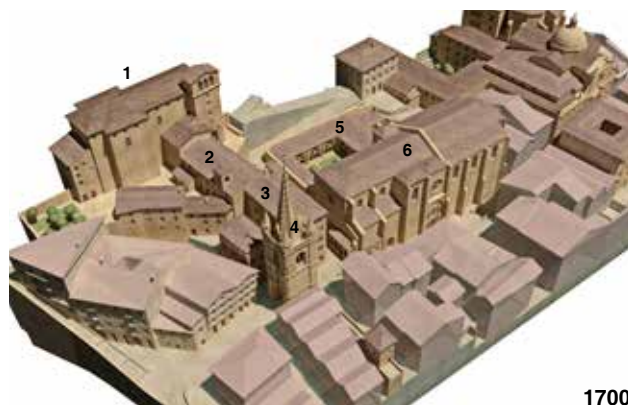
The church of Santa Maria was a few steps further east. It had several building phases. The nave was enlarged from its Gothic phase between 1566 and 1600, moving the apse three sections to the east. The entrance portal facing Callit was rebuilt, in the Baroque style, between 1743 and 1774, as it was deteriorated and not worthy of the status and magnificence that the City, or rather the Consulate, demanded. At the same time, the cloister of Santa Marta to the north was suppressed to expand its nave.

Questions remain about the authors of the plans of Baroque Santa Maria. It is at Miguel de Bildasola's initiative, prior of the Consulate and founder of the Guipuz-coana Company, that a possible reform

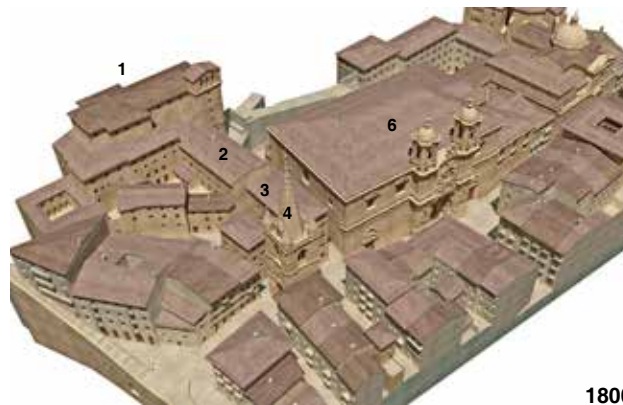
of the church begins to be studied, around 1720, and it is he who has the first plans made for this project. When he died in 1739, these disappeared, and Jose de Lizardi, who had participated in their design, was asked to redraw them. So, it seems that he was the one who drew up the first guidelines. The work had many vicissitudes and setbacks. The son of José de Lizardi, Pedro Ignacio, and Ignacio de Ibero joined it. Lizardi Jr. studied at the San Fernando Academy and much of the building could be his. Old-fashioned Ibero is likely responsible for the neo-Gothic aspect of the vaults. However, the authorship of the exterior aspect and portal remains unknown, with its successful vertical succession of concavity and convexity in such a small space and the serene contrast between it and the clean and simple lines of the rest of the facade. It is difficult to think that José de Lizardi, originally a simple master stonemason from Asteasu, was the author of such a cultured conception of architecture. The statuary of the portal, unlike those usually seen in the surroundings, is extremely expressive, establishing a triad between San Joaquín, Santa Ana and the Virgin Mary, and even a tetrad, with the Holy Spirit crowning the harmonious ensemble. There is something Berninian in this design.

Hercules Torelli's presence in San Sebastian could solve these unknowns. In 1686 he had made plans for the church of Santa Maria de Mataró and rebuilt that of San Bartolomé. It would be very strange if he had not been consulted. He knew personally Bildasola, promoter himself of the Plaza Nueva, whose plans he designed. Did Torelli and José Lizardi meet? Did the first influence the second, 20 years younger? It is likely. The municipalities of Astigarraga and Asteasu, by José de Lizardi, have something of a Torellian. In the Santa Maria façade there are characteristic elements of Torelli's work, such as the central pinion on the portal, as well as the cauldrons of the side doors that are also repeated inside, rhythmizing the entablatures.

The examples of concavity and convexity are abundant in the Baroque, provided among others by Borromini and Bernini, but rarely vertically combined. There is an example in the Carignano Palace of Guarino Guarini in Turin in 1679 on its central balcony. There could be more examples. The atrium in front of the portal was raised and was accessed from the Mayor and Trinidad streets by stairs. The temple was thus integrated into the urban fabric. Ugartemendia rejected the Baroque portal of Santa Maria and in his project of rebuilding the city



1700



1800

12. Sacral axis west side in 1700 and in 1800: The convent of Santa Teresa(1), the basilica of Santa Ana(2), La Torre(3), the bell tower door of Santa Maria(4), the cloister of Santa Marta(5) and the Santa Maria Church(6),





in 1815, he hid it behind a neoclassical propileum. He was content to split the atrium in two, to connect the streets to the ground. But with the stunted base, the temple lost solemnity. The base becomes rectangular, keeping the transept in its previous place. In the transept, opening to the south, the main portal remains, and in front of the entrance, the altarpiece of Santa Catalina is redirected. It was reserved for the Consulate, promoter of the reconstruction, thus symbolically positioning itself at the main point of the city, from which its main axis, Calle Mayor, originates. A century later, Cortázar will retake this axis to develop its “Ensanche” that will define the current city.

The bell tower door of Santa Maria, a few meters west of the church, embedded in the Oquendo tower, was another sign of identity of the city. Built on a high point in the center of the arch of La Trinidad, a true hinge between the harbor, the hill, the mountain, and the city, it regulated social time. It is referenced in various drawings and a painting from the 18th century. After the fire of 1813, only his arrow had succumbed, but Ugartemendia, to facilitate the passage to the harbor and lower levels, ordered it dismantled in 1818. San Vicente is the second parish of San Sebastian. It had to be rebuilt after a fire in 1489, which was used to expand its base. The portentous



portal tower of the entrance and the rear apse, both medieval, were kept. Recently, reports and plans have been found in the A. Diocesan of Zaragoza, which have made it possible to determine the successive phases of this reconstruction, between 1507 and 1574. The vision of San Vicente in 1800 was somewhat different from that offered today. The Baroque portal of the south façade disappeared, and the bell tower replaced by two more eclectic ones, and exaggerated rosettes that distort and ugly the sober balance of the facades have been added.

The Dominican arrival at convent of San Telmo at the beginning of the 16th century was vetoed by the city, and Carlos V himself had to intervene. An extramural ground was chosen, between the northern fence and Mount Urgull. There were two phases, first a provisional building to the east, and then, between 1547 and 1562, the final construction of the church and its cloister, further to the west, as can be seen in the plan of 1552. On that date, the cover of the church of San Vicente is still camberless. Starting with a well-aligned and orthogonal plan by the architect Martin de Santiago, the building contractors had to adapt to the meager terrain. The cloister church complex suffered a slight distortion that was cleverly resolved.



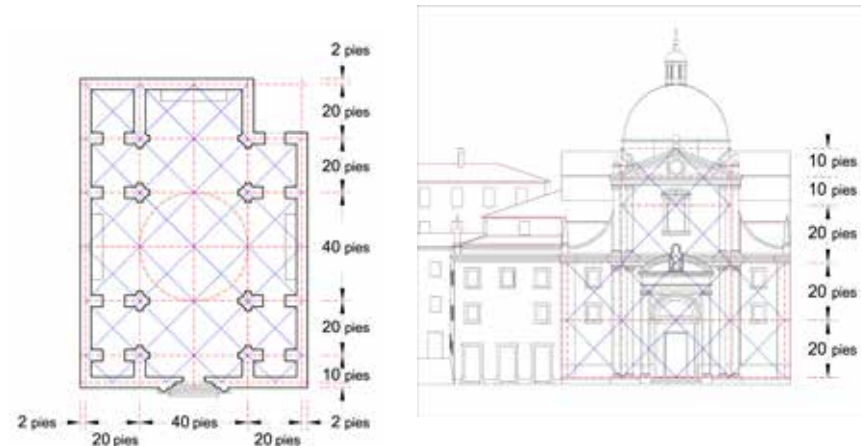
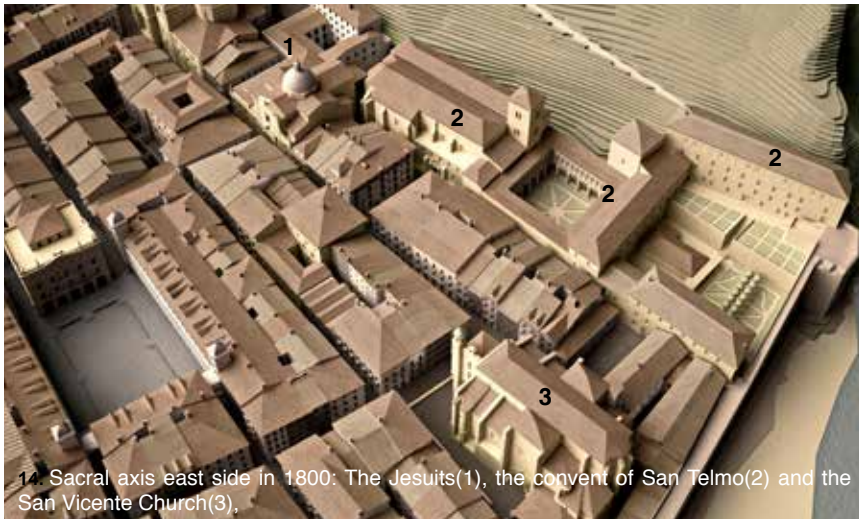
13. Two views of Santa Maria Church in 1800

The last religious order to establish in the city, at the end of the 17th century, the Jesuits, like the Dominicans 150 years earlier, encountered strong opposition from much of the population, which led to violent riots. The Dominicans themselves joined the opposition, as did the ecclesiastical council. At stake was the control of ideological and, above all, economic power. Parishes and convents dispensed censuses, that is, loans, and acted as true banks. With the proliferation of mendicant orders, the redistribution of alms and other donations became difficult. There were plenty of seafarers, whose women were easily widowed and depended on public charity. Also, all these orders stand out in the capture of inheritances, which distorted the distribution of land ownership and paralyzed urban development. The solution that the city imposed was to become itself the patron of all these entities, in order to control their economies and heritage. It did so for Santa Maria and San Vicente, and it was one of the conditions for the barefoot Carmelites and the Franciscans to settle.

It will be the same for the Jesuits, with the added obligation of serving as a school for the city. The chosen terrain was much boxed in, between Santa Maria and San Telmo, occupying part of Calle de Santa Corda, and the solution was minimalist. If we translate the measurements of the church, San Ignacio, into feet, perfect proportions are obtained. The church is centered, with its north-south axis projected on Calle San Geronimo. It was inaugurated in 1671, but the Jesuits were expelled in 1767. The school continued to have a teaching use, but later it became barracks, military hospital, and prison, being finally replaced by the current Plaza de la Trinidad. The Church must have been demolished around 1810, setting up a residential house in its place.

### The intramural city - Civil construction

One of the most relevant elements of civil construction were the main houses of the Idiaquez. They had been founded by Alonso de Idiaquez, secretary of Carlos V, from various properties that Gracia





de Olazabal gave him when they married in 1539. These houses, which have been wrongly interpreted and described in the past, have been reconstituted thanks to various plans and documents, dated in 1546, found in the Hajar collection of the Zaragoza Provincial Archive. These plans are confusing, being working sketches that mix the previous condition and the project and lacking the scale. But they give us, as the attached memorial, the levels indicated in feet and a lot of description. The location of the houses can be estimated with some precision on the city plot of 1813. Today they would border Puerto street. We infer that the report and the plans were carried out far from San Sebastian, in court, under the probable dictation of the architect Luis de Vega or Alonso de Idiaquez himself.

It was previously thought that this houses had two towers framing the main façade, but in fact, these were two pre-existing tower houses that scattered the east side of the hill, and around which the building was configured. The main door, located to the extreme left of the façade, was strategically placed on Calle Iñigo, and a small plaza was created ad hoc to dignify it, Plaza Chichurreta(1). The location of the main door(2) was also important for the internal articulation of the “Palace”, as it commanded the axis of internal circula-

tion. An “open” hallway allowed one to perceive, from the entrance, the central tower house(4), the first courtyard(3), on the right, and, opposite, the staircase that led up to the second courtyard(5) and the second tower(6), above the old fence(7).

Alonso de Idiaquez would not see his work finished, as he was assassinated in Germany in 1547. His son Juan de Idiaquez, at the time secretary to Felipe II, expanded the scope of the main houses by adding adjoining lots and expanding the garden. From 1646 the Idiaquez family would rent the complex to the general captaincy. Later, at the end of the 18th century, in full decline, it became a group of tenant houses, as would happen to many palaces or residences of the nobility who had settled permanently in Madrid.

To the west of the town, over the Moleta hill, spread an urban fabric, differentiated from the rest of the city, older, more organic, with alleys and “belenas”. Towers and tower houses followed one another behind the medieval fence, parallel to Calle De La Moleta, today Campanario street, palaces giving onto Calle Mayor, and houses of the bourgeoisie. The seafarer’s more modest ones crowded in an amphitheater between the fence and the port.

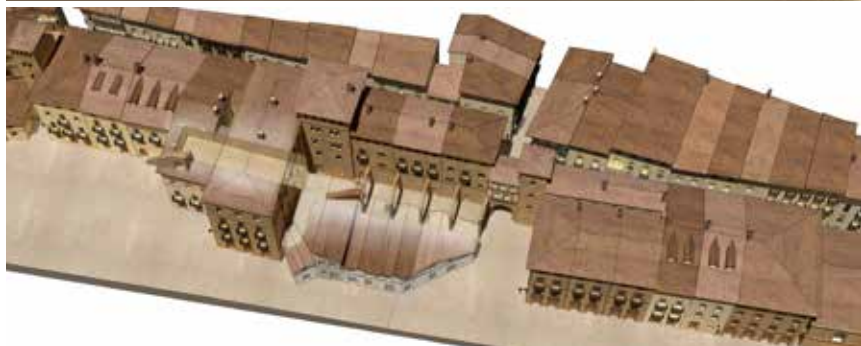
Leaning on the fence, a singular typology proliferated, that of the “cubertizo”, or bridge-house. They have endured, among other



16. Idiaquez's main houses, between calle Campanario and calle Mayor. South view, plan of ground floor, and north view. We can see an example of “cubertizo”, resting on the old medieval fence (7),



places, in Toledo, in Tuscany, and closer, in Pasaia. At the end of the 18th century, the city council launched a campaign to eradicate them, with the entrance portals to the streets, relying on the hygienist and rationalizing concepts that emerged from the Enlightenment. This policy failed, and several lawsuits testify about the harsh confrontation between their owners and the city. The fire of 1813 achieved what the city councilors could not impose and the “cubertizos” disappeared from the city’s memory. Despite the leveling, a different atmosphere is still present in the current Campanario street, set apart, higher, with its little bridge over the new Puerto street which was opened to cross the hill. Continuing south, a very suggestive space opened out, between the old fence and the Royal Curtain of Carlos V, the Plaza Real de Armas, later Plaza Vieja. On the old fence and between the arches of the entrance to the streets, towers and medieval tower houses, mansions and other houses, accessed by long stone steps, followed one another.



17. Above, the Plaza Vieja. Below, the houses and tower houses around the portal of Narrica. Circa 1800

Orchards, gardens, and corrals were arranged in front of the fence, which, little by little, were filled with warehouses, workshops, inns, and shops, one-floored so as not to cover the houses behind. In some cases, and from the XVII century, these spaces joined the back lots, new buildings being raised. Between Las Animas door and San Geronimo door, another Idiaquez palatial house stood out, its southern, stately and ashlar façade standing out above the medieval fence with a direct view on the old square.

Continuing to the east, between the old square and the portal of Narrica or de la Piedad, another series of tower houses followed one another, raised in the Middle Ages and occupied by the elite of the Gascon bourgeoisie, such as the Provost tower. Little by little they fell into decline and were converted into houses for tenants. We have been able to reconstitute, from various historical documents, this emblematic place. Ancient texts talk many times of rebuilding. It does not mean that it was rebuilt from scratch; it was, almost always, done from the walls that remained,

reinforcing them, opening new windows, and renovating especially the floors and the wooden covers. Before the Industrial Revolution, everything was recovered, including undamaged wood and



18. The tower houses of Verastegui and Babaza, circa 1600. Author’s reconstitution.

tiles; there was true sustainability. This was one of the reasons why Ugartemendia's reconstruction project was rejected: the owners wanted to reuse their walls and Ugartemendia refused, arguing that the stone was pulverized. However, even entire walls continued to be used, such as the current gutter between gates 1 and 3 of Calle Narrica, where a Gothic window persists.

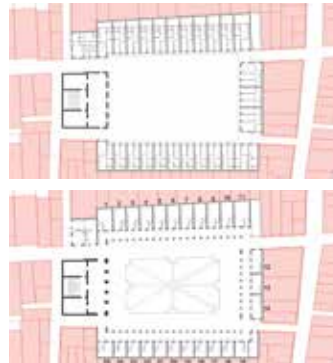
We study a typological example of a palatial tower house from the beginning of the 16th century and its evolution over time: the two tower houses of Verastegui and Babaza, located behind the portal of Narrica. The tower of Babaza had a "cubertizo" that led to a hanging garden on top of the medieval fence. There is a drawing of them in the Chancery of Valladolid. Verastegui wanted to replace the wooden posts and galleries with stone. The generalization of stairs invading the public street, and the proliferation of mixed or wooden exterior galleries, despite the ban on this material, are confirmed. In 1800, the original Verastegui house will be renovated, and a few years earlier the old "cubertizo" of the Babaza house would be demolished by order of the municipality. Today these houses can be located exactly, a little ahead, in the northwest corner of the current Sarriegui square.

### The intramural city –The Plaza Nueva

The creation of Plaza Nueva, between 1715 and 1722, was a milestone in the history of San Sebastian urban planning. Its fire in 1813 and its subsequent reconstruction by Ugartemendia have hidden the importance of the event, remaining in memory as the Plaza de la Constitución and the work of Ugartemendia himself.

In 1977 a copy of the municipal decree of September 14, 1715, which made the project of a new plaza official, was found in the protocol archive of Oñati. The author of the plans, Hercules Torelli, provided two alternatives; one with the town hall to the north, and the other to the west, the first being chosen. 40 years later, thanks to this research work, a complete file dealing with the gestation of the project and various added data, such as the end-of-work certificate of the Town Hall, whose cost was advanced entirely by the Consulate, has been located in the Madrid National Historical Archive. From all this documentation the following appears:

-That the real cause of the creation of the square was the need and will that the Consulate had of a splendid representative building attached to the Council House. Discarding to build it in the only existing square, the old square, they decided to locate it in the city



19. The Plaza Nueva. View of the Consulate and Council house. Ground floor plan and first floor plan. View of the eastern part of the plaza, circa 1800. Author's reconstitution.

center, creating an ad hoc square. The consulate takes the initiative and the municipality follows. The disagreement with the military in the old square play a secondary role. Nevertheless, it is used as justification, to pressure the court that sees with concern the possibility of mobs and riots and compel it to lift the precautionary suspensions that it had issued, what he did with a royal faculty in April 1717.

-That it is the Consulate who entrusts Torelli with the design of the plans. He presents them on the same day he is hired by the municipality, on September 7, 1715, a week before the decree of September 14. And although the municipality chooses the least expensive solution, finally the most expensive one will be built, with the council and consular building isolated to the west, surely at the request of the Consulate itself.

Ugartemendia criticized that the plaza was at a lower level than the rest of the city and was easily flooded. In fact, observing the only drawing that has been left, and comparing it with reconstruction documents, it can be concluded that there was a lowered central space that was accessed by means of a semicircular stand with three steps, a space that should have been used for bullfights and

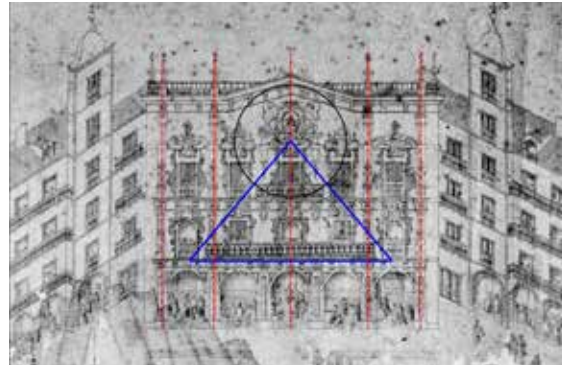
other celebrations. There was a canalization under San Geronimo street to evacuate the waters of this space, but with the disasters of 1813 it burst and floods occurred indeed. Torelli is also known to have been a hydraulic engineer. This conduit was a great advance for the time. Ugartemendia, however, will cancel it.

There are no images of the eastern part of the plaza and the reconstitution we made is hypothetical. There may not have been two more towers to the east, but this visually enlarges the plaza and neutralizes a west-east orientation in contradiction to the existing north-south orientations in the city. The priest Ordoñez, in his description from 1761, marvels that only three balconies go around the entire square. He was using maybe a metaphorical literary figure, or there was a continuity of the balconies, through arcades in the corners. As it is impossible to elucidate it, the most elegant and finished solution has been preferred.

The 25 houses in the square, with the exceptions of the corners and the eastern sidewalk, have the same width of 10 cubits, that is, 5.58 m., which in turn corresponds to a 2.79 m. inter-axis for the arches of the arcades. Flats are small, from 64 m to 93 m<sup>2</sup>, common stairs included. It might seem not enough if it were not that the sobriety



20. Another view of the Plaza Nueva from the upper balconie.



21. A fine front composition of the Council House on the only existent drawing.



22. The Town Hall of Oñati.



of the elements and their systematic repetition give the whole a serene beauty. The rear parts of the municipally-owned houses are attached to the privately-owned ones that occupied half of the remaining non-expropriated parcel, and the lighting and ventilation of both are hardly solved using brackets. The number of arches and uniform hollows has been maintained in the current plaza, as well as the continuous balconies, although interrupted in the corners, and the floor plans of the houses which will be rebuilt behind will no longer be neither homogeneous nor minimalist.

In addition to being considered in its time as one of the most beautiful in Spain, this Plaza Nueva was exemplary:

-First, because it was emptied and operated in the consolidated center of a city and not in an interstitial or exterior area, without there being any fire or disaster, to insert a space and a built group planned in unison. The rational, egalitarian, and repetitive design of both the facades and the floors will be executed in a short time, in less than five years, despite the suspensions and the war of 1719, contrasting with the examples of other squares such as Madrid or Salamanca. It is true that the much smaller size of this square, 55m long by 37m wide, facilitated this speed of execution.

-Second, because the ownership of all the houses in the square was public, as public was the construction process. The City managed not only the rent of the houses but also the commercial use of the ground floors and arcades. The City exploited the plaza as an entertainment center with the rental of the balconies, hence the numbers that still appear above the french windows, and other provisional boards arranged in front of the arches, with the corresponding taxation of food and beverages that were sold to attendees.

-Third, because the City and the Consulate planned the operation on its initiative, without consulting the court, without Royal permission, which was mandatory then. Inevitably, the royal power became

aware and decreed suspension proceedings, which were not complied with, and then ratify the fait accompli with a royal ordinance.

The Plaza was highly appreciated by the “donostiarras” and admired by the rest of the province. Many municipalities took the council house as a model to carry out their town halls, such as Oñati, Elgoibar, or Arrasate. Hercules Torelli plays with the contrast between the rich and delicate decoration of the council building, far distant from the highly ornate churriguerismo, and the resounding simplicity of the rest. Both elements reinforce each other and thus acquire more value and depth in a reduced space, more typical of the courtyard of a large palace than of a Plaza Mayor, whose dimensions would have to be doubled to reach those of Madrid, Salamanca, or Valladolid. Hercules Torelli, an Italian architect in San Sebastian



23. Hercules Torelli, *Plano de San Sebastian*, 1723, CGE Madrid.



Throughout this exhibition, the figure of the architect Hercules Torelli appears like an inescapable reference of the history of the construction of San Sebastian, of which he drew his testament plan in 1723. He is treated famous in the *Diccionario Histórico Geográfico* of 1802. Thanks to his marriage certificate, in 1690, to Josefa Ocariz from San Sebastian, we learn that he was born in Pavia, probably around 1650. After his marriage, he settled in San Sebastian. He is known to have studied in Venice, and the Prince of Montesarchio introduced him to Spain, passing from the service of King Louis XIV of France to King Charles II of Spain. The circumstances of this arrival have been misinterpreted. He was thought to be a prisoner at Toulon, and that Montesarchio had exfiltrated him. In fact, Torelli was working in Toulon for Vauban, and it was Montesarchio himself who was taken prisoner after a brief but violent naval battle in 1683. As he was a Prince and Great of Spain, his prison was the residence of the superintendent general of the Navy Jean Louis Girardin, sieur de Vauvré, who was with Vauban in charge of carrying out the work of development of the naval base of Toulon. What becomes interesting is that from this sieur de Vauvré one can make a guess of the influences and affiliations that Torelli may have had. Girardin, who was of Italian origin (Girardini) and married to an Italian, was the protector and friend of Couperin, but also and especially of Pierre Puget, the French Bernini, author of many sculptures in the Garden of Versailles and the Toulon town hall, where he also worked in the service of Vauban.

Puget stayed in Italy several times and was a disciple of Pietro da Cortona. The latter worked with the sculptor Ercole Antonio Raggi, a disciple of Gian Lorenzo Bernini, on the embellishment of the Basilica of St. John Lateran in Rome. As Torelli's second family name was Raggi, it is more than likely that there was a kinship with the one who shared his first name. Her first daughter was Lorenza Antonia, the first names of Bernini and Raggi. It was also part of the

Order of St. John Lateran, which honored artists and architects who worked in the service of the Church. Did he work with his eventual uncle in St. John Lateran? Did he know on this occasion Cortona, and then Puget, who introduced him to Toulon? Did he then meet Girardin and then Montesarchio, who convinced him to come to Spain when this was released in 1685?

This possible relationship that leads from Bernini to Torelli through Puget can be illustrated with three minor works representative of seventeenth-century Baroque art. First, the canopy of St. Peter of Rome by Bernini, dating from 1634, and which is still there, second, a catafalque at Santa Maria Assunta of Carignano in Genoa, made in 1663 by Puget, and, third, the catafalque for Queen Mariana in the cathedral of Pamplona, erected in 1696 by Torelli himself. Torelli left its mark in Mataro, Santoña, Hondarribia, Pasaia, the Bay of Gibraltar, Malaga, Almeria, Cartagena, Ceuta, Oran, Pamplona, and Getaria, but also in Rio de la Plata in Argentina. He died in San Sebastian, poor and forgotten on March 26, 1728.

24. The canopy of St. Peter of Rome by Bernini. The catafalque at Santa Maria Assunta of Carignano in Genova, by Puget. The catafalque for Queen Mariana by Torelli.



## Conclusion

In conclusion, we can say that by dint of perseverance in the search for data and thanks to the fluid readability conferred by the drawing of the 3D model, the knowledge of the formation of the urban space of San Sebastian has made great advances. Many contradictions have been resolved. Certain facts given as established have been contextualized and questioned; new representative spaces and places, iconic buildings, layouts, and persistent formal relationships have been updated. We sought to establish the determinisms induced by the architectural and urban material of the city itself and by the geographical field, that is to say, the territory in which the city operates.

We wanted to show too the determinisms created by the anthropological field; the city is a living being the fruit of its inhabitants. We finally wanted to stress the importance of the cultural and ideological field, the political field, and the economic field; the city is the result of cultural, political, and economic power struggles.

The city is built with a certain *modus operandi*, with the technical knowledge and artistic codes of the time. We wanted to situate the urban development of San Sebastian in the field of the history of architecture and town planning. We wanted to get out of the oblivion of the personalities who left their mark in the city. Ultimately, we wanted to claim the strength, the wealth, and the virtues of the art of city building in order to better understand the city that persists under our feet.





## Fuzeta. A unique fishing village

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The current thesis studies the urban and architectural evolution of the maritime village of Fuzeta, in Algarve (Portugal). Founded by fishermen, this village stands out by its regular urbanism and a housing typology relatively uniform with unknown origins, different from the rest of Algarve's urban settlements. This research aims to analyse the urban evolution of the village since the first settlements to the current urban structure, and to study, through a typological, formal and constructive perspective the houses covered by pitched roof (*telhados de tesouro*) and vaulted terraces which defines its vernacular architecture. It is intended to investigate further the origins of the urbanism and the architectural features by comparison with other examples in the Algarve and in the European Mediterranean.

Considering the lack of documentation, publications, inventories or specific works on the village under study, except for a few generic references made by ethnographers, geographers and architects in the past that do not provide an overview of the chronology and history of the buildings or the urban fabric, this study is based on archival research and on-site buildings' surveys purposely made.



1. Aerial view of Fuzeta in the 1950s. (Source: Arquivo Municipal de Olhão).  
 2. Houses in Fuzeta, between Rua detrás das Cercas and the shoreline, in 1950s. (Source: Arquitectura Popular em Portugal, 1961)

Apart of the lack of information, there is two studies published in 1961 that should be mentioned: *Arquitectura Popular em Portugal*<sup>1</sup> that resulted from the survey on Portuguese Regional architecture carried out by the National Architects Syndicate; and the chapter *Açoteias de Olhão e telhados de Tavira*<sup>2</sup>.

The primary sources, cartographies and manuscripts, used for trace the urban evolution came from national and regional archives, namely the National Archive Torre do Tombo, National Library of Portugal, District Archive of Faro, Municipal Archives of Olhão, Tavira and Vila Real de Santo António, Military Historical Archive of the Portuguese Army and the Archaeological Studies Office of Military Engineering, among others.

<sup>1</sup> Pires Martins, Artur *et al.* 1961. "Zona 6." In *Arquitectura Popular em Portugal*. Lisboa: Ordem dos Arquitectos II, 241-359.

<sup>2</sup> Ribeiro, Orlando. 1961. "Açoteias de Olhão e telhados de Tavira. Influências Orientais na Arquitectura Urbana." In *Geografia e Civilização*, 66-69. Lisboa: Livros Horizonte.

3. Aerial view of Fuzeta in 1972. Source: F-38junho1972, CIGeoE/Centro de Informação Geoespacial do Exército.



The on-site buildings' surveys were done in 133 houses in Fuzeta and 32 houses in the towns of Zahara de los Atunes, in Spain, Breil-sur-Roya, in France, the Island of Pantelleria, in Italy, and the Island of Thirasia, in Greece.

This document is divided in 5 parts following the thesis structure: introduction, chapter 1 about the urban evolution of Fuzeta; chapter 2 studying the architectural typologies; chapter 3 characterizing the constructive features of vaulted terraces; chapter 4 exploring the affinities with other Mediterranean vaulted houses; and conclusion.

## Chapter 1. Settlement, allotment and urbanization

Fuzeta is located in the eastern Algarve, in a flat area called beach that extends up to the foot of a small hill, on the west bank of the mouth of a small river called *Ribeira do Tronco* (or *Rio da Fuzeta*), near a navigable channel between the cities of Tavira and Faro, at the edge of the salt marsh region called *Ria Formosa*. It is protected from north winds by the mountains, and subject to the high temperatures and low rainfall that give Fuzeta its Mediterranean characteristics<sup>3</sup> (Figure 3). Its privileged location within the *Ria Formosa*, near

<sup>3</sup> Feio, Mariano. 1949. *Le Bas Alentejo et l'Algarve*. Lisboa: Congresso Internacional de Geografia, 107.

4. Huts in the nearby village of Monte Gordo, in 1773. Source: BAHOP, "Topographic Chart", N° I, 1772-1830, MR14, vol.1, p.121





the *Barra da Fuzeta*, the only maritime waterway to the high seas between Olhão and Tavira, as well as its proximity of the cities of Faro and Tavira, made Fuzeta a strategic point. Since the 16th century, the region has been protected by watchtowers, with the closest one located in the Bias area, whose defences were reinforced by the Battery of Fuzeta, built in the 17th century<sup>4</sup>. According to the docu-

<sup>4</sup> Vaz, Adérito. 1986. *As Origens da Fuzeta e seu Topónimo*. Olhão: Biblioteca Cultural Olhanense, 8-10.

mentation found by Fernandes Mascarenhas, in the second half of 16th century it was already considered a place of residence<sup>5</sup>.

The urbanism of Fuzeta date from the 16th century with the first seasonal settlements of the fishermen in huts located at west side of the river of Fuzeta by the seafront, becoming permanent due to the security context provided by the construction of the Fortress

<sup>5</sup> Fernandes Mascarenhas, José. 1953. "A origem do topónimo Fuzeta e a sua evolução". Faro: *Jornal Correio do Sul*, September 10, 1953.



5. Urban morphology studies for Fuzeta reconstitution's plan in middle 18th century according cartographic sources from 18th century. (Author's drawing)

The first cartographic representations of the settlement are from the late 18th century and mostly made by the royal military engineers, Joze de Sande Vasconcelos and Baltazar de Azevedo Coutinho. Frequently, these cartographies show an aligned settlement of buildings between the west bank of the river's mouth and the *Ria Formosa*, indicating the existence of a maritime waterway to the high seas, a tuna processing settlement and a military outpost<sup>7</sup> (Figure 5).

<sup>7</sup> AHMEP. 1782. *Mappa Hidrographico da Barra da Cidade de Faro (...)*.

7. (next page) Mapping of the property tenants' registers ruling in 1876 for Fuzeta reconstitution's plan according the written source Reconhecimento de foros da Fuzeta, 1854-1869. (Author's drawing)







A few decades earlier, the “Parochial Memories” of the nearby parish of Moncarapacho<sup>8</sup>, reported the existence of a fishing settlement of huts on the beach, composed of 109 dwellings and the Chapel of Our Lady of Mount Carmel, annexed to the parish of Moncarapacho until 1835, when it was authorized to establish an independent parish (Figure 5).

Since the primary settlement, empiric rules were used to locate and to organize the huts in the landscape and to establish the first streets to the fortress. The first streets –*Rua da Boavista*, *Rua Direita* and *Rua do Carmo*–, lead to a regular tracing with parallel fronts facing the sea, and perpendicular to the river, in a northeast-southwest direction, composing the “Foundational Nucleus”, which was the basis for the urban growth in the following centuries.

The registers about “rents and sales of lands”, done by the notaries Bento Freire Henrique (1800-1802) and Caetano Joze de Brito (1802-1806)<sup>9</sup> indicates the first allotments of enclosed plot lands to build houses, close to the shoreline in the streets *Rua Direita*, *Rua da Boavista* and *Rua do Carmo*,

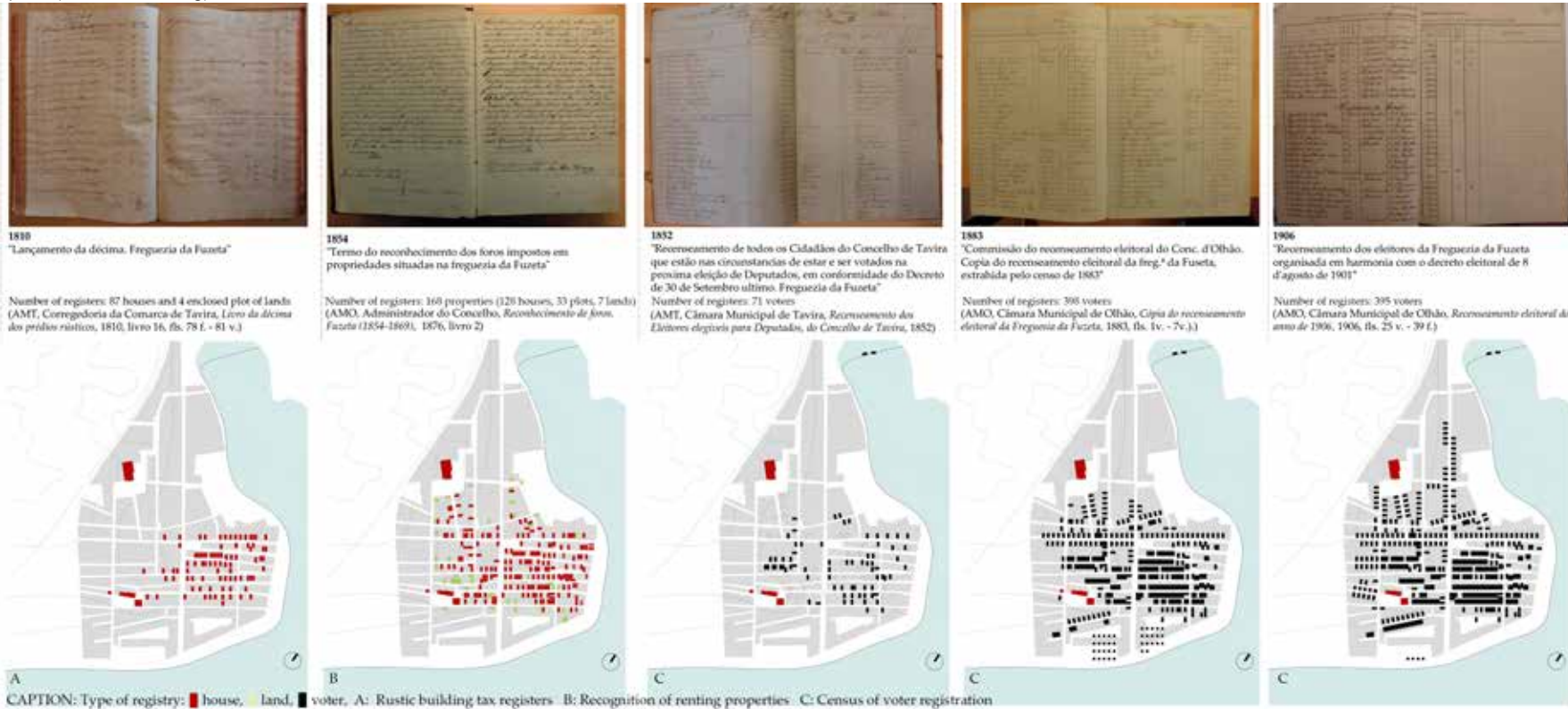
<sup>8</sup> ANTT. 1758. “Moncarapacho/Tavira”, *Memórias Paroquiais* 23: 172; 1758; 1131-1140.

<sup>9</sup> ADF, Cartório Notarial de Tavira. *Registos do Tabelião Bento Freire Henrique*, 1800, livro 1800-1802; *Registos do Tabelião Caetano Joze de Brito* 1802-1806, 51, 119.

8. Types of allotments and urban evolution study of Fuzeta, from early 18th to middle 20th century. (Author's drawing)



9. Mapping data for urban evolution study from different sources of registers (building tax registers, rent registers and military census) from early 19th to early 20th century in current Fuzeta plan. (Author's drawing)



mentions its location, dimensions, tenants, previous tenants, and prices (Figure 6).

The second stage is associated with a perpendicular axis to the Foundational Nucleus aligning the fortress with the Chapel of Our Lady of Carmel. The construction of the church and its square, in middle 19th century, enhanced the northwest-southeast direction streets and the urbanisation of the upper will called "New lands".

The consolidation and densification of the urban fabric resulting from these stages of development led to the opening of two new

roads –*Nova Grande* and *Nova Pequena* in the northeast-south-west direction.

The analysis of the manuscript *Reconhecimento de Foros da Fuzeta*, 1854-1869<sup>10</sup>, containing 169 rental property registers with information about the tenants, locations, delimitations, princes and uses allowed to picture the urban evolution of the village in middle 19th century. (Figure 7)

<sup>10</sup> AMO. 1876. Administrador do Concelho, *Reconhecimento de foros (...)*.

In this period, the urban structure of the village was already defined with a fabric consisting different sets of allotments that characterize different urban morphologies. The Foundational Nucleus, with streets running in a northeast-southwest direction, mostly subdivided, was occupied by masonry houses. The “New land” near the Fortress square was mainly empty plots to build. A new area emerged around the church square, the “Church nucleus”, with streets running in northwest-southeast direction, perpendicular to the Foundational Nucleus, with an ongoing process of subdivision and built occupation. The different lots and the levels of built occupation indicate the existence of three stages of urban development by the second half of the 19th century.

With these stages having established the nucleus of the urban fabric, a fourth stage can be considered, the “Urban extension”.

10. Photography of Rua da Igreja, in Fuzeta, during 1940s. Source: Floriano Andrade.



It consists of the urban fabric extension into the farmland to the northeast, to the salt marsh areas, and the land to the west, next to the railway line, whose Railway Station was inaugurated in 1904, leading to the opening of new streets and subdivisions in the rural areas: *Rua das Vinhas*, *Rua das Amoreiras* and *Rua das Cercas*. (Figure 8)

For the regularity of the Fuzeta's urbanism contributed the 18th century legislation, particularly the law of 1776 related to the rent of county lands recommending the standardization of allotments' dimensions and the prevalence of regular streets, applied on the allotments' campaign of the enclosed plot lands during the 19th century, present in the regular front dimension of lots.

Other primary source complementary to the study of urban evolution on the 19th century was the military census to the population, frequently done –1852, 1870, 1883 and 1906, allowing to understand the housing dispersion and concentration in the urban structure<sup>11</sup>. (Figure 9)

During the 19th century, huts were being replaced by masonry houses and new sets of houses were built in the new allotments following an architectural and constructive typology providing great coherence in the historical centre. Although huts continued to exist in Fuzeta until the end of the 19th century<sup>12</sup>.

## Chapter 2. Houses and vaults

There is no documentation on the date of the construction of the first houses in Fuzeta, but according to Romba, the huts of nearby village of Olhão began to be replaced in 1715, with the first requests by residents to Queen Maria Ana de Áustria, wife of King João V, “to build masonry houses since they lived in huts”. In re-

<sup>11</sup> CMO, *Recenseamentos eleitorais*, (1852, 1870, 1883 and 1906)

<sup>12</sup> Leite de Vasconcelos, José. *Op. cit.*: 280.



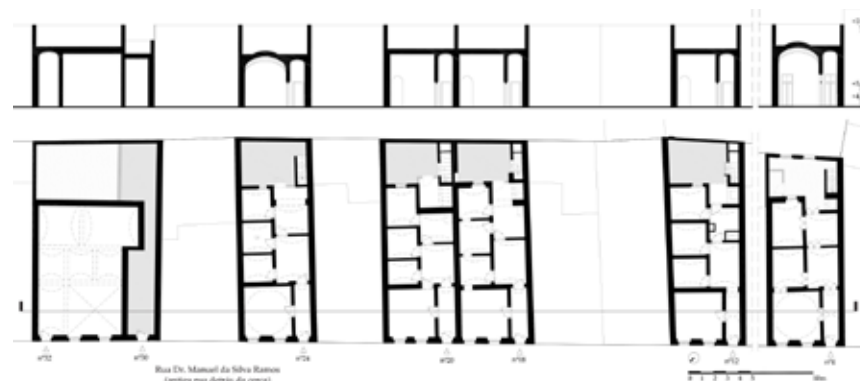


11. Housing typology and roof construction systems according to in situ survey. (Author's drawing)



sponse to the second request for the same purpose, in 1718, the Queen strongly recommended that the house to be built must “be done right and not crossed”<sup>13</sup>. According to Vaz<sup>14</sup>, the replacement of Fuzeta’s huts should have begun in the 18th century. However, in the map made by Joze de Sande Vasconcelos, in 1775, entitled *Configuração de todas as praças, fortalezas e baterias do reyno do Algarve*<sup>15</sup>, it is explicitly stated that in Fuzeta “buildings are not made of earth, or of masonry”. Moreover, even in 1887, the Burguel neighbourhood (around the ruins of the Fuzeta Fortress) was formed by huts, constituting at least a third of Fuzeta’s buildings<sup>16</sup>. So, the substitution of most of the huts could only have occurred during the 19th century.

The construction of masonry houses in Fuzeta, whether original or to replace huts, was associated with a current house type characterized by contiguous dwellings with a single floor, placed in narrow lots currently with homogeneous widths, around 5 to 6 varas (the measurement unit used until 19th century, equivalent to 1.1m), correspondent to the “standard lots”. The houses have a modular composition, organised in 2 or 3 sectors – façade, middle and back – majority with individual brick vaults ceilings with terraces above, exception for the pitched roof (*telhados de tesouro*) in the façade sector, currently disappeared. The main façade of a house in a standard lot is composed by two windows and a door and topped by a frieze protecting the



12. Façade, section and plans of a set of houses with different types located in standard lots in the former Rua de trás das Cercas (current Rua Dr. Manuel da Silva Ramos) in Fuzeta. (Author’s drawing)



13. Photography of vaulted rooms and correspondent façade in the houses lots in the former Rua detrás das Cercas (current Rua Dr. Manuel da Silva Ramos) in Fuzeta. (Author’s photos)

<sup>13</sup> Romba, Sandra. 2015. *Evolução Urbana de Olhão*. Olhão: Sul, Sol e Sal, 56-57.

<sup>14</sup> Vaz, Adérito. *Op. cit.*: 16.

<sup>15</sup> BNP. 1775. *Mappa da Configuração de Todas as Praças, Fortalezas e Baterias do Reyno do Algarve*, no.12, 4, 12.

<sup>16</sup> Leite de Vasconcelos, José. *Op. cit.*: 280.

terrace and hiding the roof system. On the back of the lot, there is a courtyard and frequently a water well. (Figure 10)

The houses in standard lots can be composed by 2 or 3 sectors, usually the middle one is covered by barrel vaults perpendicular to the façade and the back one with a parallel barrel vault. On the façade sector is the living room, called the *casa de fora*, with a square layout covered by a pitched roof, a sail vault (*abóbada de vela*) or a dominical vault (*abóbada barrete de clérigo*), and a corridor covered by a barrel vault. The middle sector consist of two or three alcoves covered by a continuous barrel vault and an interior living room, called *casa de dentro*, and a kitchen, usually in the back sector covered by a barrel vault parallel or perpendicular to the previous sector. Sometimes, the indoor kitchen is complemented by a covered outdoor space with a fireplace and oven, embedded in the roof terrace's stairwell, extended by a porch to the back courtyard. (Figures 11, 12 and 13)

The house in narrow lots, with less than 5m front, are also composed by 2 or 3 sectors. The difference stands in the façade sector, without corridor and just the *casa de fora* room. The middle and back sectors are covered by barrel vaults perpendicular or parallel to the façade.

The house settled in large lots, with more than 6m front or resulting of the junction of two standard lots, is composed by 2 or 3 sectors. It has an internal distribution with a central corridor, similar to the Portuguese traditional house called *risca ao meio* (symmetrical plan and façade), and has also a symmetric façade composed by a door in the middle flanked by one or two windows, and a courtyard in the back, depending on the geometry and location of the lot. The façade sector made up of two main rooms, the living room and the bedroom, covered by dominical vaults and separated by a corridor with a barrel vault. The middle sector is covered by two continuous and parallel barrel vaults, one covering the bedrooms or alcoves; and other covering the interior living room and the kitchen. These

types of houses have a modular in character, emphasized by the independent vaults coverage that can be identified on the roof terrace.

### Chapter 3. Vaults as a constructive system

As mentioned before, the traditional houses of Fuzeta are covered by a terrace supported by barrel, sail or dominical vaults, or by a pitched roof called *telhado de tesouro*, on the room. Due to the lack of conservation, the last exemplars with pitched roof were replaced by reinforced concrete slabs, during the 20th and 21st century. The pitched roof was introduced in the cities of the Algarve in the 16th century as an architectural element of prestige<sup>17</sup>. The use of pitched roofs in the houses of Fuzeta and Olhão, probably since the huts began to be replaced by masonry houses, is a direct influence from the urban houses of the neighbour cities of Faro and Tavira. Besides, the local consolidation of the construction technique over four centuries provided the necessary knowledge for their construction.

The pitched roof has a 45° slope, followed by an almost horizontal ledge supported by the wall. Its characteristic wooden structure is usually visible in the interior and the roof lining is placed between the structure and tiles, and is constituted of rows of reeds arranged horizontally and alternating with wooden boards. The interior pyramidal volume, together with the porous lining, induces rising air

<sup>17</sup> Vieira Caldas, João. 2007. *A Arquitectura Rural do Antigo Regime no Algarve*. Lisboa: Instituto Superior Técnico, Universidade Técnica de Lisboa, vol. I, 196.



14. Photography of the interior of the roof of the main room *casa de fora* of houses in Fuzeta: sail vault, dominical vault and pitched roof. (Author's photos)



and a cyclic ventilation process which increases the thermal comfort in the room. Thus, this roof type leads to a technical solution well adapted to the local climate.

Contrary to what has been argued<sup>18</sup>, the vaults of the Modern Era only began to be used in the noble houses of the Algarve in the mid-18th century, and were probably first employed in common houses at the end of the same century<sup>19</sup>.

The oldest vaults are of the barrel vault kind, usually with a springing of stone masonry and haunches<sup>20</sup> filled with transversal rows of solid bricks and mortar, laid at a 45° inclination in order to be supported by the previous row without requiring formwork. Although having a more complex geometry, the dominical and sail vaults were constructed according to a similar process and, in their constructional perfection, reveal their builders' total command of the technique. (Figure 14)

After constructing the soffit of the vault with brick and filling the spandrels, the terraces were then carefully clad with plain tiles and lime washed, not only for insulation but also for accessibility and other

<sup>18</sup> Ribeiro, Orlando. *Op. cit.*

<sup>19</sup> Vieira Caldas, João. *Op. cit.*

<sup>20</sup> The springing is the start of the vault in the vertical extension of the walls which support it; and the haunches are the part midway between the crown and the springing.

15. Geometrical study of the barrel vaults with three-centred arches in different rooms of houses in Fuzeta. (Author's drawing)



uses, in particular for drying fruit, fish or clothing, the maintenance and storage of fishing gear, or collecting water that was then stored in underground cisterns, totally aligned with the Mediterranean costumes.

## Chapter 4. Mediterranean vaulted houses

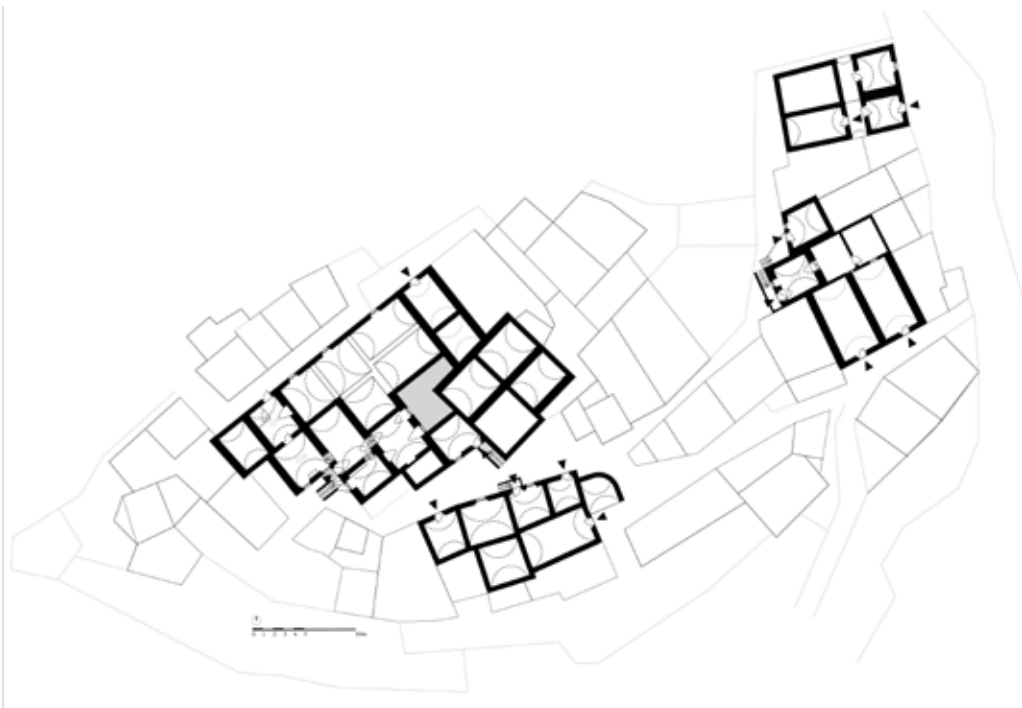
The present chapter focuses on a comparison undertaken on Mediterranean traditional houses, present in the European national surveys carried out in 20th century, with similar construction systems to those used in Fuzeta, particularly the vaults and roof terraces, aiming at understand and reinforce the erudite origins of the Fuzeta vaults.

The first European systematic studies on traditional construction were carried out in Italy, and began in the late 1920s with the research on *Rural Housing in Italy* published in the collection *La Casa Rurale* between 1938 and the 1980s. The Sicily's volume revealed the presence of vaulted houses in the small island of Pantelleria, a volcanic island located in the Strait of Sicily, between the island of Sicily and the Tunisian coast.

### The Italian dammuso house

The traditional house, called *dammuso*, are an example of the vaulted roof terrace house typology. Although the island has a rural character, marked by isolated houses on agricultural land, there are a few urban settlements, such as Pantelleria, Scauri, Kamma and Gadir.

The dammuso is characterized by a main volume consisting of three vaulted spaces: the rectangular central space and living room (*cammara*), and two attached rooms, the bedroom (*alcove*), and the dressing room (*cammarinu*), with a storeroom, separated from the living room by a curtain. Secondary volumes are also vaulted, and are attached to the main volume and have complementary uses, according their rural or urban surroundings. The main volume is the morphological and structural basis of the three types of con-



16. The *dammuso* vaulted house of Pantelleria, in Sicily, Italy. Plan of houses near Patellera city and Via Madonna della Margana and Via Farchicalà. (Author's drawing)

17. The *casun* vaulted house of Breil-sur-Roya. Plan of the houses in Cotte, around Chemin de Breil. (Author's drawing)

struction on the island: the urban (or agro-urban) palace, the rural house and the rural chapel<sup>21</sup>.

The *dammuso* rooms are covered by three dominical vaults, visible on the roof terrace, which irregular and asymmetric forms are a result of the nature of the building materials, volcanic stone, and the local construction technique. The vaults geometry is defined by the wooden formwork on which the mortar and stones are laid and subsequently compacted and lime washed, waterproofing the vaults' surface. The vault soffit is also lime washed, and sometimes decorated with friezes, ribs, and frames with geometric, plant and maritime motifs. In the interior of the rooms, the walls have inset niches, shelves, cabinets and benches. The vaults are supported by thick stone walls with a few small windows and doors (one in the main façade oriented to north or northeast) giving a fortified aspect. Annexed to the main volume is the kitchen, the cistern and, sometimes, other complementary rooms (stable, barn, cellar and store-room for agricultural and fishing tools). The house is sited around an open space, usually a path, a courtyard or a threshing floor, according to solar orientation and exposure to prevailing winds, to protect from the cold winter winds and the warm south winds in the summer. The land is bounded by stonewalls, including an orchard called the "Arab garden", which has a proto-circular shape, protecting the fruit trees from the winds.

### The French *casun* house

In 1941, contemporary with the first Italian publications, the French survey on regional architecture, *Chantier intellectuel 1425*, was launched by Georges-Henri Rivière, director of the National Museum of Arts and Popular Traditions. The project was conducted

<sup>21</sup> Bonasera, Francesco. 1968. "La Dimora rurale nelle isole minori pertinenti alla Sicilia Occidentale. L'isola di Pantelleria." In *La Casa Rurale nella Sicilia Occidentale*, 172-181. Firenze: Leo S. Olschki.

between 1942 and 1945 and published as *L'architecture Rurale Française*<sup>22</sup>. The volume *Comté de Nice* revelled the existence of vaulted houses in Breil-sur-Roya region, in the Maritime Alps, called *casun*.

The *casun* is a two-storey house with vaulted roof settled in blocks with regular allotments, around 4.5m front, imposed by the vault building system, with perpendicular and/or parallel orientations. The ground floor is a semi-basement and intended for shelter of animals, to the granary and storage the farm tools. The upper floor is used for housing and consists of two vaulted compartments: a kitchen and a bedroom. The barrel vault used in the *casun* is made of stone masonry with lime mortar, has an arched profile that tries to approach the semi-circle. It was made using a wooden formwork, with a filling that reaches the highest thickness in the corners, giving strength and reducing the inclination of the extrados, currently protected by a lime screed or coated with a layer of earth and the soffit is whitewashed.

### The Spanish *cañon* house

In Spain, the book *Folklore y Costumbres de España*, published in 1934 by Leopoldo Torres Balbás, dedicated a chapter to "Popular Housing in Spain". This pioneering approach was the basis of two further investigations: *Arquitectura Popular Española* published in 1973 by Carlos Flores, and later *Itinerarios de Arquitectura Popular Española* published between 1974 and 1984 by Luis Feduchi. However, these two sources did not mention the vaulted houses of Zahara de los Atunes, the *cañon* house.

The origins of the urban centre of Zahara de los Atunes brings it closer to Fuzeta, both founded on a seasonal settlement of huts

<sup>22</sup> Raybaut, Paul. 1982. "Modes de groupement de l'habitat." In *Comté de Nice. Architecture rurale française*. Paris: Berger-Levrault.





18. The *cañon* vaulted house of Zahara de los Atunes, in Spain. Plan of the houses settled in the Calle Agustin Medina Chico.

19. The *spiti* vaulted house of Thisasia. Plan of the houses in Manolas (left) and Potamos (right)

and masonry houses located next to the seaside, at the mouth of a river. Despite the similarities in the genesis of implantation, the vaulted constructions of Zahara de los Atunes date back to at least the 16th century, being, therefore, much earlier than of Fuzeta.

The urban form of the foundational nucleus of Zahara de los Atunes was defined based on streets parallel to the maritime and fluvial margins, originating an irregular grid, which compared to the foundational core of Fuzeta highlights its urban ruled morphology, where the tendency towards a regular urban layout, that determined its evolution, has prevailed since the first hut installations.

The vaulted houses of Zahara de los Atunes are composed by few and multipurpose compartments, accommodating different functions throughout the day, and it is covered by a single barrel vault. The vaults are made by bricks, placed in straight rows perpendicular to the top walls, similar to the Roman constructive system and needing the use of formworks for its construction. They present a variable geometry and high (between 2.65m and 3.20m) with arches starting at 1.5m height. The vaults' soffit and extrados are covered and whitewashed, and the filling of the corners attenuates the curvature, although the roof terrace is not used. The oldest vaults have a more irregular soffit due to the use of the stone masonry.

### The Greek *spiti* house

One of the most recent national surveys in the Mediterranean region was *Greek Traditional Architecture*, published in 1983 by Dimitri Philippides, which provided theoretical reflections on traditional Greek architecture, influenced by the chronological distance of the first European surveys. Philippides identified three types of houses in the Cyclades Islands of Santorini: rural, urban and mansion, that could be completely built, partly-built or carved. The traditional urban house is sited in a cramped lot, with various floors, in over-

lapping volumes, leading to a more organic internal organization and the absence of a façade type. In the 19th century, the urban house within the city walls, evolved into an erudite model of the house, inspired by the Italian and Venetian Renaissance house, and characterized by a monumental façade, known as the *Santorini mansion*<sup>23</sup>. The rural house is sited on a single floor and follows a typological internal distribution around a courtyard that is reflected in the façade.

Thirasia is a small island at the northwest side of Santorini's main island where the traditional houses prevail, with an urban and constructive coherence, unlike the urban areas of Fira, Pyrgos, Karterados or Oia, on the main island of Santorini, partly destroyed in the 1956 earthquake, and largely reconstructed using new techniques and adapted to the needs of tourism.

Manolas is one of the three settlements on Thirasia Island, located along the ridge line. It is an urban settlement, with longitudinal pedestrian streets set into the slope, and a regular lot division perpendicular to the streets. The narrow lots fomented the construction of row houses with the same architectural type and in a solid block, with greater resistance to earthquakes<sup>24</sup>. As the width of the lots directly influenced the typology of the roof, in these islands, the houses are covered by vaults made with volcanic stones, differing from the flat roofs of other houses of the Cyclades, using wooden structural beams and lath, coated with a pumice, pozzolan or clay mortar<sup>25</sup>.

<sup>23</sup> Philippides, Dimitri. 1983. "The approach to vernacular architecture." In *Greek Traditional Architecture: Eastern Aegean, Sporades, Ionian Islands*. Athens: Melissa Publishing House, vol. I, 167-177.

<sup>24</sup> Georgalli, Maria-Christina. 1991. "The morphology of traditional dwellings within an insular context: Amorgos, Greece." In *Traditional Dwellings and Settlements Review*. California: IASTE, vol. 2.2, 54.

<sup>25</sup> Philippides, Dimitri. *Op. cit.*: 155; 158.

The Manolas house consists of two rooms, similar to *spiti*, where the smaller one connects with the kitchen (*parastia*). The interior alcove lies in the continuation of one of the rooms, depending on the lot geometry. The façade reflects the two main rooms with corresponding doors and windows. The main room has two windows, one each side of the door, and is more than 6m deep. The secondary room has just one window and is the same depth or less, allowing an inner alcove three metres deep. There is also a difference between the two rooms in terms of width, with the secondary room with the alcove usually being wider.

As in Santorini, the houses of Thirasia are covered by barrel vaults built with volcanic stone and mortar. The common barrel vault's geometry approximates to a semicircle, with an irregular and sometimes inaccurate aspect, due to the irregularity of the raw material, the stone, and the popular nature of the construction process. Until the first quarter of the 20th century, the barrel vault was executed by assembling volcanic stones with mortar perpendicular to the vaults' curvature. Later, the vault construction process changed to the use of a mortar composed of small volcanic stones, pozzolan and pumice placed on the formwork, creating a lighter *vault*<sup>26</sup>. The morphological analysis of a Thirasia house emphasizes the spatial composition based on the aggregation of spaces covered by a barrel vault, according to the local and traditional house typology, whose basic compositional unit is the *spiti* room.

## Conclusions

The research of primary sources, manuscripts and cartography from the archives, with further analysis and synthesis using the drawing as reflection process, allowed to reconstruct the stages of the urban evolution of Fuzeta and to identify the influence of urban laws in an urbanism that evolved without the use of plans, then considered “spontaneous”.

The urban morphological analysis of Fuzeta highlights the organised pattern of its urban fabric and the preferred orientation of the long and narrow blocks in a northeast-southwest direction, parallel to the sea. Probably, with their origins in the parallel rows of the first settlements of huts, with their fronts facing the sea.

Regardless of its orientation, “streets parallel to the sea” is the common representation of Fuzeta's settlement in the cartographies of the Algarve coast, made in the last decades of the 18th century. The cartographic representations have sufficiently developed scale and detail for this type of organization to be explicit. Furthermore, this organization was confirmed a century later by Leite de Vasconcelos through the significant number of remaining huts observed, as well as by the “rental property registers” from the middle of the 19th century.

The analysis of the architectural evolution of Fuzeta's houses pointed out the replacement of the precarious hut constructions with the laborious construction of housing typologies, whose constructional features (particularly the roofs) refer to erudite buildings from the nearest urban centres. The use of a standardized architectural typology in most of the houses and its adaptation to the homogeneous allotments formed the basis of the construction of urban ensembles.

The consolidation of Fuzeta's house types and the absence of local typological ancestors enabled intermediate stages of housing

<sup>26</sup> Papas, Constantin. 1957. *L'Urbanisme et l'Architecture Populaire dans les Cyclades*. Paris: Dunod, 144-148.



experimentation to be identified that could explain the evolution of huts to masonry houses. The chronological gap between the beginnings of the process of replacing the huts in Olhão and Fuzeta, allowed a later systematic use of a housing typology in Fuzeta. Conversely, in Olhão, the process of replacing the huts resulted from a slower evolution.

Furthermore, the research on the fishermen's settlements, namely the Zahara de los Atunes and the *cañon* house, Breil-sur-Roya and the *casun* house, Pantelleria and the *dammuso* house, Thirasia and the *spiti* house, and the parallels found with Fuzeta's architectural and constructive morphology, led to an understanding of the different stages of the consolidation process of the vaulted house typology.

The comparison of the interior layouts of these vaulted house typologies reveals that the type of compartmentation can be associated to the stage of the typology's consolidation. It is possible to outline an evolution from primitive and basic compositions, which respond to forms of basic dwelling with polyvalent spaces, to hierarchical layouts and compositions, separating different uses of the house and originating more rooms. The houses on Zahara, Breil-sur-Roya, Thirasia and Pantelleria have a limited number of rooms (around four or less), with multiple uses, contrasting with the number of rooms in Fuzeta's houses (between six and eight) with defined functions. This fact may be explained by whether the familiarity with these constructional techniques, especially the vaults, originates more from "popular" or "erudite" knowledge.

Although the vaults of Fuzeta and its Mediterranean similar share the same constructive period, between the 19th and the mid-20th centuries, and their construction processes are the result of the local transmission of knowledge, the different construction methods of the vaults and their origins are reflected in the quality of

the finished surfaces. Popular vaults, such as the ones found in Thirasia and Pantelleria made by volcanic stone, the Zahara using bricks or the Breil-sur-Roya using stone, tend to have "approximate geometries" with imperfect finishes, while Fuzeta vaults are made using bricks, with a more perfect geometry, assemblage and finish.

The comparison of the housing and vaults typology of Fuzeta with other similar vaulted houses, allowed to establish, as rigorously as possible, the regional and Mediterranean architectural affinities, based on the used materials, constructive systems and adopted geometries.

The study of Fuzeta's urbanism and architecture contributes to investigate further the understanding of the History of Urbanism and the Traditional Architecture within the wider context of the Algarve and the European Mediterranean region, and raises the question of the difficulty in establishing boundaries between the popular and the erudite knowledge, being in a limbo zone between these two terms, generally taken as opposites.

# news from

## **THE SECOND MANUEL DE SOLÀ-MORALES EUROPEAN PRIZE 2019**

The jury:

Marcel Smets

Matthew Carmona

Montse Nogués

José González Cebrián



## WINNER

Renata Priore Lima

**“Plugin. Interfaces urbanas en los nuevos centros lineales. El caso de la Avenida Paulista”**

Estanislau Roca, Supervisor

Universitat Politècnica de Catalunya, Spain

## MENTIONS

Anne Kockelkorn

**“The social condenser II. An archaeology of housing in the Parisian banlieue based on the housing projects of Ricardo Bofill and Taller de Arquitectura”**

Philip Ursprung, Supervisor

ETH Zürich, Department of Architecture, Switzerland

Juan Antonio Chávarri Sarasua

**“La alargada huella de la plaza de la pelota”**

Xabier Unzurrunzaga, Supervisor

Universidad del País Vasco - Euskal Herriko

Unibertsitatea, Spain

Miriam García García

**“Hacia la metamorfosis sintética de la costa. Diseñando paisajes resilientes”**

Jose María Ezquiaga, Supervisor

Universidad Politécnica de Madrid, Spain

## FINALISTS

Carolina Mónica Gonçalves Martins

**“Understanding accessibility in cultural landscapes sites. The case of Parques de Sintra, Monte da Lua”**

Teresa Frederica Tojal de Valsassina Heitor, António Ressano Garcia Lamas and Nuno Miguel Rodrigues Marques Oliveira, Supervisors

Instituto Superior Técnico, Univ. de Lisboa, Portugal

Celia Martínez Hidalgo

**“Cartagena y su campo. Historia y proyecto”**

Jose Luis Gómez Ordóñez and Rafael Reinoso, Supervisors  
Universidad de Granada, Spain

María Cabral Matos Silva Aires Pereira

**“Public space design for flooding: facing the challenges presented by climate change adaptation”**

João Pedro Costa (Univ. de Lisboa, Faculdade de Arquitetura) and Cristina Castel-Branco (Univ. de Lisboa, Instituto Superior de Agronomia), Supervisors  
Universitat de Barcelona, Spain





**Open Ceremony, March 19, 2019**  
**The reading of the verdict**  
**Barcelona, ETSAB, Sala de Graus**



Open Lecture, March 19, 2019, COAC

“Designing infrastructure to foster revitalization.  
Barcelona’s tradition of addressing urban projects”

Marcel Smets, Chair of the Jury

Introduced by Assumpció Puig, Dean of the COAC



Photo by Maria-Françoise Pissot

DIMARTS 19 MARÇ 2019  
19:00 SALA ACTES COAC

PROF. MARCEL SMETS

“DESIGNING INFRASTRUCTURE TO FOSTER REVITALIZATION.  
BARCELONA’S TRADITION OF ADDRESSING URBAN PROJECTS”

THE SECOND  
MANUEL DE SOLÀ-MORALES  
EUROPEAN PRIZE  
2019







**Lecture, March 21, 2019, ETSAB**  
**“Plugin. Interfaces urbanas en los nuevos centros lineales.**  
**El caso de la Avenida Paulista”**  
**Renata Priore Lima, Winner of the Prize**

## **The Avenida Paulista as a Linear Urban Centre**

**Renata Priore**

**Awarded on The Second Manuel de Solà-Morales European Prize 2019**

The building-city relationship, which links the architectural dimension of urban space to the urban dimension of architecture, so-called plug-in, constitutes the common thread of the ideas presented in this research. This also covers the topic about urban centralities and collective spaces in the context of the urban development of Avenida Paulista in São Paulo. The thesis considers that urban centres assume new forms and dynamics. Such is the case of linear centres, organized by rectilinear structures of boundless growth that structure designs, flows, activities, infrastructures and a set of notable buildings connected by a complex network of collective spaces. As it happens in Avenida Paulista, these are often characterized by miscegenation and express the hyper-connected ways of life in modern society.

These premises, developed throughout the different chapters, are based on analyzes of relevant theoretical references from Brazil and Europe, as well as on documents, photos, regulations, plans, projects and information taken in situ and organized in graphic diagrams at different scales, without ever losing sight of a historical perspective. Likewise, they show the value that the avenue acquired as a locus of experimentation for the international architectural and urban avant-gardes, expressed in its original project from the end of the 19th century and in its different stages until it became the epicenter of the metropolis. Finally, the new forms, strategies and guidelines of contemporary collective spaces are highlighted, which have created intensities and permeabilities across the ground floor beyond the parameters of functionalist and traditional cities.

**Collection arquia / tesis 44**

**English / Spanish**

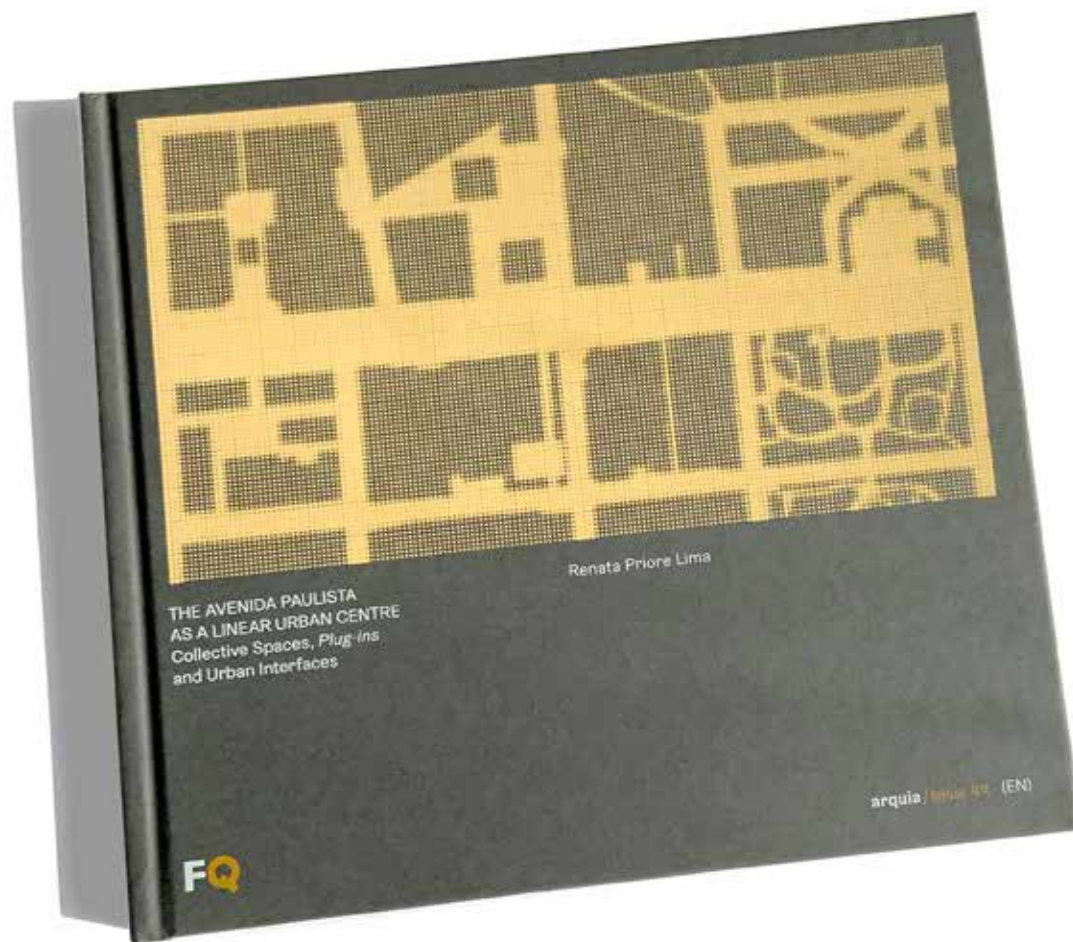
**Fundación Arquia, 2020**

**200 pp.**

**ISBN: 9788412174830**

**[www.fundacion.arquia.com](http://www.fundacion.arquia.com)**

The PhD thesis entitled *Plug-in: Urban interfaces in new linear centers: Paulista Avenue case study*, supervised by Estanislau Roca Blanch, was defended at the Barcelona School of Architecture (ETSAB) on December 19th 2016 with an academic committee composed of: Josep Parcerisa Bundó (ETSAB-UPC, chairman), João Pedro Teixeira de Abreu Costa (Universidade de Lisboa) and Amílcar Torrao Filho (Pontifícia Universidade Católica de São Paulo). It was distinguished with the *First Prize in the Second Manuel de Solà-Morales European Prize 2019*, organized by the Barcelona Urbanism Laboratory (LUB), whose jury was formed by Marcel Smets (chairman), Matthew Carmona, Montserrat Nogués Teixidor (Fundación Arquia trustee) and José González-Cebrián (secretary).

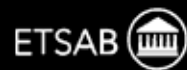




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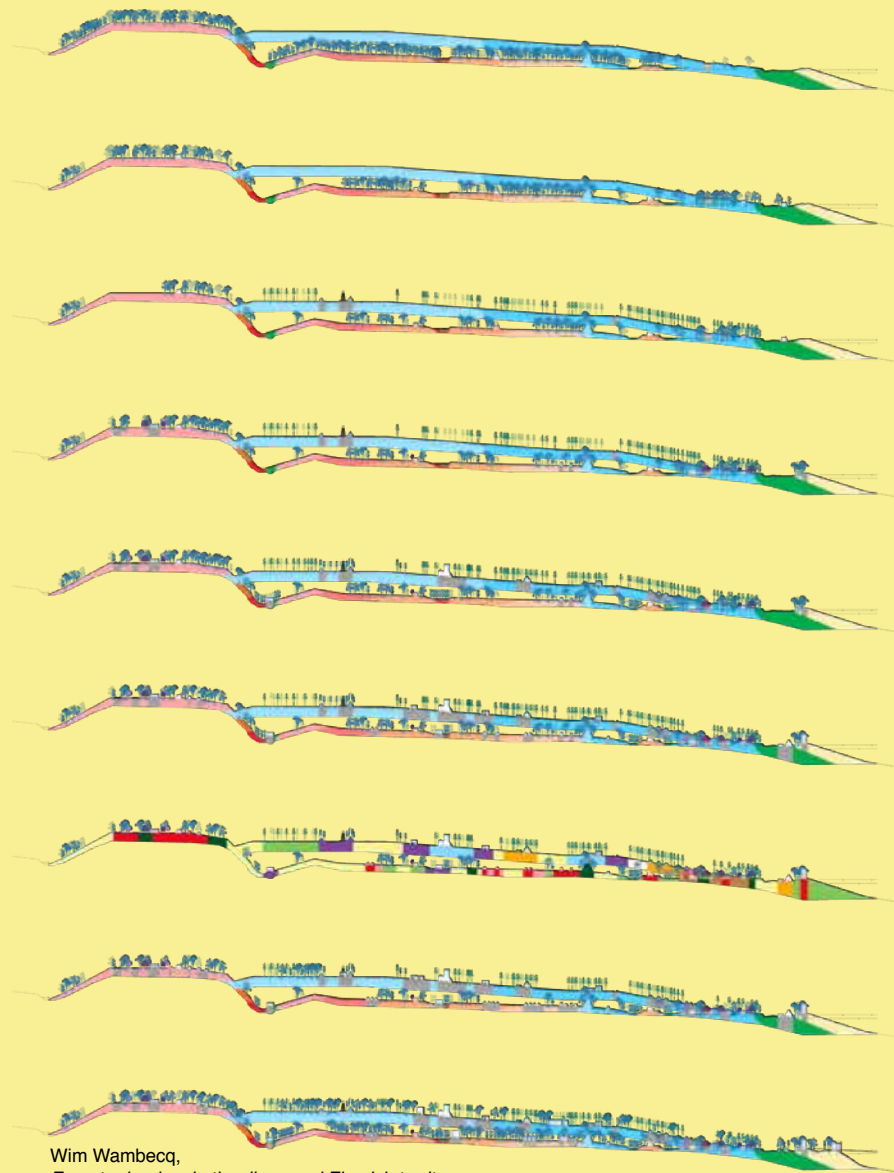


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Wim Wambecq,  
*Forest urbanism in the dispersed Flemish territory*  
 PhD Thesis, 2019.  
 Winner of the Third Manuel de Solà-Morales European Prize 2021

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